No. 27. April Sessions, 1907.

IN THE

Circuit Court of the United States

FOR THE EASTERN DISTRICT OF PENNSYLVANIA.

IN EQUITY.

The United States of America, Plaintiff,

vs.

The Reading Company, The Philadelphia and Reading Railway Company, The Lehigh Valley Railroad Company, The Delaware, Lackawanna and Western Railroad Company, The Central Railroad Company of New Jersey, The Erie Railroad Company, The New York, Susquehanna and Western Railroad Company, The Philadelphia and Reading Coal and Iron Company, The Lehigh Valley Coal Company, The Lehigh and Wilkesbarre Coal Company, The Pennsylvania Coal Company, The Hillside Coal and Iron Company, The New York, Susquehanna and Western Coal Company, and The Temple Iron Company, Corporations, *et al.*, Defendants.

DEFENDANTS' TESTIMONY.

VOLUME IV.

PRESS OF
ALLEN, LANE & SCOTT,
PHILADELPHIA.

APPOINTMENT OF EXAMINER.

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF PENNSYLVANIA.

The United States of America
vs.
The Reading Company et al.

Of April Sessions, 1907
No. 27.

AND NOW, January 30, 1908, upon motion of Alex. Simpson, Jr., special counsel for plaintiffs, it is ordered and decreed that Charles H. Guilbert be, and he hereby is, appointed Examiner in the above case, in accordance with Rule XIII of the additional rules in equity adopted by this court, for the purpose of taking the testimony therein, either within or without this district, and to report the same to the court *sec. reg.*

GEO. M. DALLAS,
Cir. Judge.

RETURN OF EXAMINER.

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF PENNSYLVANIA.

The United States of America, Plaintiff,

vs.

Reading Company and others, Defendants.

April Sessions, 1907.

No. 27.

In Equity.

I, Charles H. Guilbert, duly appointed by the Court as Examiner to take the testimony in the above-entitled cause, either within or without this district, and to report the same to the Court, do hereby ecrtify that, beginning, pursuant to notice, on April 7th, 1909, and continuing from time to time thereafter, I have taken or caused to be taken and recorded all the testimony of the witnesses produced and the exhibits offered on the part of the defendants, on the examination in chief, as well as all the proceedings connected therewith, the signing of the testimony by the witnesses respectively being waived by counsel; and that the following is a complete and true record of all such testimony, exhibits, and proceedings, the same beginning with the proceedings before the Examiner on April 7th, 1909, and ending with the proceedings on October 20th, 1909, and including defendants' exhibits marked respectively.

In witness whereof I have hereunto set my hand this 26th day of October, 1909.

C. H. GUILBERT,
Examiner.

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IN THE CIRCUIT COURT OF THE UNITED STATES
FOR THE EASTERN DISTRICT
OF PENNSYLVANIA.

April Sessions, 1907. No. 27.

IN EQUITY.

The United States of America, Plaintiff,

vs.

Reading Company and others, Defendants.

Met pursuant to notice at Room 74 in the old Astor House, New York City, Wednesday, April 7th, 1909, at 10.30 A. M.

Present:—The Examiner.

James C. McReynolds, Esq., and G. Carroll Todd, Esq., for the United States.

Hon. Adelbert Moot, for Erie Railroad Company, Hillside Coal and Iron Company, New York, Susquehanna and Western Railroad Company, Pennsylvania Coal Company, New York, Susquehanna and Western Coal Company and Clarence Coal Company.

Hon. J. D. Campbell, for Reading Company, The Philadelphia and Reading Coal and Iron Company and Philadelphia and Reading Railway Company.

J. F. Schaperkotter, Esq., for Lehigh Valley Railroad Company and the Lehigh Valley Coal Company.

Thomas F. Welles, Esq., for Pinehill Coal Company and Nay Aug Coal Company and others.

Robert W. de Forest, Esq., for the Central Railroad Company of New Jersey, and the Lehigh and Wilkes-Barre Coal Company.

Major Everett Warren, for Temple Iron Company, Mount Lookout Coal Company, Lackawanna Coal Company, Melville Coal Company, Michael F. Dolphin.

William S. Opdyke, Esq., for Delaware and Hudson Company.

J. E. Burr, Esq., for Elk Hill Coal and Iron Company and Price-Pancoast Coal Company.

J. L. Seager, Esq., for Delaware, Lackawanna and Western Railroad Company.

F. H. Platt, Esq., for Lehigh Valley Railroad Company and Lehigh Valley Coal Company.

DEFENDANTS' EVIDENCE.

It is understood that the introduction of evidence at this time by the defendants shall be without prejudice to either side in respect of motions heretofore filed or of which notice has been given, and which are appointed for hearing on Monday next, or in respect of any similar motions which any party may wish to present at that time.

It is further understood that it shall not be necessary for witnesses introduced by the defendants to sign their testimony.

JUDGE MOOT: About the printing of the defendants' record, I would suggest that the understanding be that the Examiner send a copy of his stenographic minutes and of the exhibits, to be printed in separate volumes, to the printers, Allen, Lane & Scott, of Philadelphia, as fast as the same is prepared; that the proof sheets be sent by the printers to the counsel of the company putting in evidence for proofreading, and to the Government counsel, and that

the printed matter, after it has been proofread and completed and the pages have been struck off, shall be sent from time to time to counsel of the various companies who appear.

MR. MCREYNOLDS: The Government leaves it to counsel for defendants to comply with the rules of court in reference to this printing, and does not hold itself in any way responsible for carrying out the above suggestion.

TESTIMONY ON BEHALF OF NEW YORK, SUSQUEHANNA AND WESTERN RAILROAD COMPANY AND OTHER DEFENDANTS.

A. ZABRISKIE RYERSON, having been duly sworn, was examined as follows:—

By JUDGE MOOT:

Q. What is your age, where do you reside, and what is your business? A. I live at Bloomingdale, New Jersey; my business is real estate, 171 Broadway, New York; and I am sixty-four, and in my sixty-fifth year.

Q. What was your father's name? A. Martin John Ryerson.

Q. Is he living? A. No, sir.

Q. When did he die? A. 1879.

Q. Did he have any connection with any part of the railway system now known as the New York, Susquehanna and Western? A. I think he did, yes, sir.

Q. With what part of that system was he connected? A. The whole system from the beginning, you mean, or just the latter part? I do not remember when the Susquehanna took control of the road.

Q. You do not remember when it became a part of the New York, Susquehanna and Western Railroad? A. I could tell from the papers, but I do not remember now.

Q. When did his connection with that road in any form begin? You may look at your papers and refresh your recollection. A. He was elected secretary in 1866.

Q. You just tell in your own way, or read in your own way, what you have there with reference to your father's connection with this railroad, and then if Mr. McReynolds finds anything about it objectionable, I will let him move to strike it out. A. Would it not be well to commence in 1832? That was the foundation of it; my family was in it then.

Q. Go ahead. A. (Reading from memorandum.) "The charter of the New Jersey, Hudson and Delaware Railroad was passed March the 8th, 1832. Incorporators, Jacob M. Ryerson, Samuel Fowler, Thomas C. Ryerson, Joseph E. Edsall, James Stoll, William Dickery, William Heyberger, James M. Porter, John Hagerty, John Moore, Daniel M. Broadhead. The incorporation was taken up in 1847 by appointing Dudley L. Gregory president and John P. Jackson secretary. This charter, with all its supplements was transferred to the Pennsylvania Coal Company December 30th, 1853, General John Ewen, president, Mr. Hoyt secretary and treasurer, Martin John Ryerson elected as a director. The route surveyed and arrangements made in 1854-1855, but the financial panic of 1855 stopped work. They spent $10,000 in making surveys and then nothing was done until 1866. In January 1867 the charter was purchased and company reorganized."

Q. It was purchased from whom? Apparently it was transferred to the Pennsylvania Coal Company back in the 50's? A. Yes, sir.

Q. Was it purchased from the Pennsylvania Coal Company in 1867? A. That is the way I understand it. "John Rutherford, president, and Martin John Ryerson, secretary. The first work of grading on this railroad was commenced January 31st, 1867 by Martin John Ryerson at Bloomingdale, Morris County, near the old furnace stack. The snow about two feet deep." I saw them go over there and dig the snow with shovels to save the charter. "Board of Directors, John Rutherford, president, Martin John Ryerson, secretary, Julius H. Pratt, D. E. Culver, Albert Pearce, Martin John Ryerson, H. C. Spalding, D.

C. Littlejohn, Henry R. Lowe, John Lomes. Consolidation of New Jersey Hudson and Delaware Railroad, Sussex Valley Railroad, Hoboken, Ridgefield and Paterson Railroad, took place May 3d, 1870, into the New Jersey Midland Railway. C. A. Wortendyke, president, Hezakia Watkin, secretary. Directors, Martin John Ryerson, John Rutherford, D. C. Littlejohn, Isaac Demarest, Cornelius Vreeland, E. P. Wheeler, John C. Prout, H. C. Spaulding. The track was laid to Bloomingdale near I. C. Reeves Saturday afternoon, April 22d, 1871." I was there and saw it. "Grand celebration took place Thursday afternoon, April 27th, 1871; about eight hundred present. New locomotive, No. 2. C. A. Wortendyke arrived with three new passenger and three new freight cars loadel with stockholders and directors, &c. Also band of music. Monday evening, May 1st, 1871, trains commenced running regular from Bloomingdale to Hawthorne and connected with the New York and Erie Railroad. Two trains per day left Bloomingdale, 6.50 A. M., 12.15 P. M., reached New York 8.55 A. M., 5 P. M. Left New York 7.30 A. M., and 5 P. M., reached Bloomingdale 9.55 A. M., 6.53 P. M."

Q. I take it that you have fixed those dates that you have given us there in some way, of these events that you have stated as you went along? A. Yes, sir.

Q. You remember them personally in many instances? A. I do, yes, sir.

Q. How did you fix your dates? A. I got them from father's papers and from his diary.

Q. Whose diary A. Father's, Martin John Ryerson.

Q. He kept a diary? A. He did, yes, sir.

Q. And you have looked over these various papers and this diary of your father's, for the purpose of fixing these dates? A. I did, yes, sir.

Q. But the things themselves, like the beginning of the line and the snow, and the celebrations, and things of that sort, you say you rem mber yourself? A. Yes, sir; I was there.

Q. Bloomingdale is about how far from Jersey City?

A. About thirty miles by the Greenwood Lake Railroad, we call it, and about thirty-six or thirty-seven by the Susquehanna.

Q. At the time this road was opened from Bloomingdale to Hawthorne, was there any railway at all to Bloomingdale? A. It stopped at Bloomingdale.

Q. But, at the time the railroad was opened, did Bloomingdale have any railroad at all, until this was opened? A. No, sir.

Q. It was without a railroad? A. It was without a railroad.

Q. How large a place was it? A. I suppose in the neighborhood of about three hundred or four hundred. We used to have to drive to Paterson, ten miles.

Q. There you got what railroad? A. The Erie.

Q. The Erie to Jersey City? A. Jersey City.

Q. By opening this railway from Hawthorne you reached the Erie at Hawthorne? A. Yes, sir.

Q. The distance from Bloomingdale to Hawthorne was how much? A. I do not remember.

Q. About how many miles? I do not care for the exact number. A Fifteen miles and a half, about.

Q. This railway from Hawthorne to Bloomingdale was under construction from the time your father dug in the snow to save the charter until the time you opened up and celebrated as you have given the dates? A. Yes, sir.

Q. They were building it all that time? A. They were building in different sections.

Q. You have named various men who were connected with it as directors and stockholders? A. Yes, sir.

Q. Do you know what they subscribed or how large a sum of money they raised by subscription to build this road? A. I think I have it here somewwhere. (Producing paper.)

Q. You produce here a document in the original handwriting, which reads as follows: "The undersigned committee, appointed to report upon the resources and condition of the finances of the New Jersey, Hudson and Delaware Railroad Company, respectfully submit the

following: That the town of Minersville has agreed to bond for the sum of $75,000, of which sum at least $50,000 will be expended for the purpose of constructing this road. Subscriptions have also been made by inhabitants of the town of Wantage to the amount of $150,000; by the inhabitants and property holders of the town of Hardiston to the amount of $40,000; by the town of Sparta, including the zinc companies, $50,000; and by other parties and corporations in the Pequannock Valley, to the amount of $40,000, amounting in the aggregate to the sum of $330,000. Dated January 6th, 1870. (Signed) John Rutherford. H. R. Low. J. Lomes." Do you know who these various men were that were connected with this railroad in its inception? A. I only know them in this way that they used to visit our house. I was acquainted with the majority of them.

Q. Were any of them wealthy men? A. I guess so, some of them.

Q. How many of them would you say, for instance, were millionaires? A. That is a question I cannot answer. Bishop Littlejohn was quite a man in his day.

Q. Were there any millionaires among them, so far as you know? A. No, sir; there was not.

Q. There was not? A. No, not so far as I know.

Q. Was there a man among them worth half a million, so far as you know? A. Personally, no, sir. I do not know anything about their financial affairs.

Q. Were any of these men putting in any large amount of their own money, so far as you know? A. I do not know.

Q. So far as you know, they were not? A. No, sir; they were not as far as I know. I do not know anything about that.

Q. This railroad, so far as you know, was being built, as this subscription paper indicates, by these subscriptions and bonding towns and all that, to get a local railway? A. Yes, sir.

Q. How many of these places that are mentioned in the subscription paper I read were places that had any

railroad connections at the time this is dated, so far as you know? A. Not any of them.

Q. None of them had any railroad connections? A. No, sir.

Q. Which part of this railway was first completed, according to your recollection? A. Between Hawthorne and Bloomingdale.

Q. Was that all completed at once, or was some part of that completed first? A. It was built in sections, if I remember correctly. It was not built west of Bloomingdale at that time; there may have been some work on it. Bloomingdale was the first stop, first station.

Q. I see here a paper which I think you said was in your father's handwriting? (Showing witness paper.) A. Yes, sir, it is.

Q. That shows that on this railroad there was spent in the first year for labor, how much? You can tell from your father's memorandum that he paid out for the year 1868 $1503.59 for labor? A. Yes, sir.

Q. And for the year 1869, $705.64? A. That is the way I take it, yes, sir.

Q. Was he the man that had charge of building the railroad? A. Indirectly, yes. He built part of the Montclair Railway at Pompton Plains and Wynockie. He had contracts for those sections.

Q. He was the man that did the building? A. Yes, sir.

Q. Have you any way of telling when those parts of the railway were finished? A. It was finished after 1870 when the Susquehanna commenced to run.

Q. Perhaps you can tell me about when, about how many years ago your father finished? A. I think about two or three years afterwards, 1873 or 1874, in that neighborhood.

Q. He finished those railroads to Montclair? A. The Montclair Railway; he built this section from Pompton to Greenwood Lake.

Q. The railway that your father finished for this railroad company about 1873 or 1874 reached what villages? A. Ran up to Greenwood Lake.

Q. How many villages did that touch on the way? A. It struck Wynockie, Boardville in those days, and the lower part of Greenwood Lake.

Q. Was there any railway to those places then? A. No, sir.

Q. About how many inhabitants were there along in those places that this railway served at that time? A. From what point do you mean? Through Pompton Township, or through Pompton Plains, Morris County? Where do you mean?

Q. How much of that railway did your father build? Where did he stop building? A. I think he built three or four bridges, or had them built—the same thing, you know—and probably three or four miles of railway, so far as I remember.

Q. The part that he built began where? A. Pompton Plains.

Q. And ended where? A. At Boardville.

Q. He had charge of the building of the rest? A. The rest of the road, no, sir. He just had that section, I think. He built several bridges.

Q. What I want to get at is, where did that railway of which he built a section, begin? A. Began on the Plains; he built the section on the Plains.

Q. Was there any other railroad to the Plains? A. No, sir.

Q. If it began on the Plains, where did it end? A. It ended up near Wynockie.

Q. Was that on any railroad? A. No, sir.

Q. Then it began at a place that was not on a railroad and ended at a place that was not on a railroad? A. Yes, sir. There was no railroad up there.

Q. How did they afterwards connect up with any railway? A. Montclair, the upper section, you mean?

Q. I do not care which section. A. I do not know anything about the lower section, because that is a later date, but they ran up to Greenwood Lake and then they made connection there with boats, two steamboats, and they took passengers up to the end of the lake, the same as they do to-day.

Q. What was it? Just an excursion railway? A. Oh, no; they ran regular trains every day.

Q. Suppose a person wanted to go from New York to Greenwood Lake; how would he go over that railway? A. Up to Montclair and Greenwood Lake, and then take a steamer on the lower end of the lake.

Q. They would go to Montclair on what road? A. I do not know who owned the road down this way; the Erie Company now.

Q. What was hauled over this railroad when it was first built? A. Wood, iron ore, iron; that is about all, I suppose. Iron ore was the principal thing.

Q. Did they haul any passengers? A. Certainly, of course.

Q. Any milk? A. I think not, not in those times.

Q. Not in those times? A. No, sir; could not. It only ran from Bloomingdale.

Q. Who was the iron maker that used iron ore? A. Cooper and Hewitt, Abram S. Hewitt, at Ringwood.

Q. Abram S. Hewitt was manufacturing iron at Ringwood? A. Yes, sir.

Q. And this railway drew ore to him at Ringwood? A. I think Cooper and Hewitt, which was Abram S. Hewitt, built a branch from Boardville to Ringwood, about five or six miles.

Q. When was that? A. I do not know.

Q. It was later than 1873 or 1874? A. Oh, yes; several years afterwards. They wanted to get the ore down to save carting.

Q. Before that they had carted ore from some place? A. They had to cart it over to Sterling, I think it was, and years ago they used to cart it all the way down to Jersey City and Hoboken.

Q. And they built a little road? A. From Boardville.

Q. Of about what length, to get the ore? A. About five or six miles, I do not remember exactly.

Q. When this railway first began to run, did it run freight trains? A. I guess it was more or less combination, if I remember correctly. I think there were some freight trains on. I do not remember those things.

Q. When it first began to run, was it a fact that it had an engine and then a combination car, in one end of which there was a place for mail, package freight and baggage, and in the other end a place for passengers? Was that the sort of a train? A. I think it was.

Q. About how many years would you say that this railway was a railway running a train of that description? A. I could not tell.

Q. A few years? A. A few years, until they got running through to Middletown.

Q. When they got to running through to Middletown, was it then that they first began to separate their freight and their passengers? A. I do not know.

Q. You could not tell about that? A. No, sir.

Q. There was a time after a while when they began to separate freight and passengers? A. I suppose so, yes, sir.

Q. You traveled on it and I am asking you for your recollection? A. I do not remember those things to-day. The train ran up and down and I was on the train and knew all about it, but whether they carried milk and coal and so on, is a thing I do not remember. I never kept any account of it at all.

Q. Do you know anything about the final building of the road up to Stroudsburg? A. Personally?

Q. Yes. A. No, sir.

Q. You do not know anything about that? A. Only from hearsay.

Q. That is all, only from hearsay? A. Yes, sir.

Q. That occurred after your father's death? A. I could not remember that.

Q. You say your father died in 1879? A. 1879, yes, sir. I do not remember when they opened that Stroudsburg branch.

Q. But you do not remember your father having anything to do with it? A. No, sir, he had nothing to do with it.

Q. You know that? A. Yes, sir.

Q. So it was after he had anything to do with the road that that happened? A. Yes, sir.

Q. Do you know whether the road hauled any coal until after it was built to Stroudsburg? A. I do not remember.

Q. You cannot tell about that? A. No. Probably they did, but where they got it from is a question; I do not know anything about that. They might have brought it up from Paterson.

Q. Your father owned farms? A. Yes, sir.

Q. What other business did he have besides being a farmer? A. Manufacturer of iron.

Q. Where did he manufacture iron? A. Bloomingdale.

Q. Where did he get his ore? A. Ringwood.

Q. The same place Mr. Hewitt did? A. Yes, sir.

Q. How did he get his ore? A. Carted it down with teams.

Q. About how many miles? A. Ten miles.

Q. Was this railway ever built so that he was able to bring his ore by railway? A. No, sir.

Q. He carted ore then as long as he manufactured iron? A. He did.

Q. Until he died? A. Yes.

Q. Was the business of making iron there continued by the family? A. No, sir; we stopped two years before he died.

Q. Then he was a small iron man, I assume? A. Yes, sir, manufacturer of wrought iron.

Q. What would it amount to? A ton a day or something like that? A. About that; only a small company.

Q. What was it made of? Charcoal? A. Yes, sir, charcoal; iron made with charcoal, and wrought iron, made of charcoal mixed in with the ore, and then we used scrap iron afterwards.

Q. About how much of this railway ran through your fathers's farm. A. Farm and woodland and everything else?

Q. Yes. A. Five or six miles or more.

Q. About what proportion of that land of your father was woodland at that time? A. About three or four acres; may have been five or six acres, I do not remember.

Q. Did the railway pay anything for the right of way, or was that given by your father? A. Given with some considerations, of course. I have the account here.

Q. Can you tell what the considerations were that your father received for the right of way?

(The witness produced a paper.)

Q. Is the substance of it about this, that your father was to give a right of way through his land six rods wide in consideration of the railway being built through there and in consideration that the railway would make part of the improvements by way of bridges and farm crossings and things of that character, and your father should do some of the grading and make some of the improvements himself? A. I guess that is what it is.

Q. That is about the substance of it? A. That is about the substance of it.

Q. That is the way the thing was done, according to your recollection? A. Yes, sir.

Q. Was that about the way the company got its right of way from the people through there, so far as you knew, in other cases also? A. Some cases may have been that way, but I think a great many gave the right of way to have the privilege of the railroad; they were anxious to have the railroad up there. They may have bought some property, for all I know, but that was the general, idea, to improve property and have communication to New York.

Q. So far as you recall, in the main the company got its right of way in consideration of building a railway so that they would have communication to New York? A. Yes, sir.

Q. And the people who gave the right of way did not even get a pass to New York on the road? A. I know father did not.

Q. The rest of them did not either, so far as you know? A. No, sir.

Q. They had to pay fare to New York? A. Yes, sir. It was quite amusing about that. Father had a pass, one of the directors sent it to him, and one day they wanted to raise a certain amount of money, if I remember correctly, in Jersey City, and he kicked. He was on the bonds and notes and he did not want to go any higher. So the next meeting they turned him out and he had to pay his own fare afterwards. I remember that.

Q. That is a part of the early history of this road? A. Yes, sir, it is.

Q. Do you remember what fare they had to pay from Bloomingdale to New York, for instance? A. No, sir, I do not.

Q. Was it as high as it is now or higher? A. I do not remember. I have no idea of it.

Q. Has there been any change in the passenger rate between Bloomingdale and New York that you can recall? A. Not as far as I know.

Q. What change, if any, has taken place in the character of this part of the railway line between Bloomingdale and New York, that you have noticed as you have traveled back and forth over it? A. What kind of a change do you mean?

Q. As to the character of the traffic or as to the character of the country or anything of that kind. A. There is more travel on the road than there used to be, of course. Some parts of the country have improved and some have not improved. Take it up through Greenwood Lake and that country, and I do not think it has improved a bit; but take it through Pompton, Campgaw, Wyckoff and Newfoundland, and it has greatly improved.

Q. The population has increased? A. Yes, sir.

Cross examination.

By MR. MCREYNOLDS:

Q. Where have you gotten this information with reference to dates in the early history of this road, which

you have been giving? A. From my father's papers and from the diary which he kept.

JOHN L. GUYRE, having been duly sworn, was examined as follows:—

By JUDGE MOOT:

Q. Will you give us your age, your place of residence and your occupation? A. Fifty-nine years old; 139 Pearl Street, Paterson, New Jersey; passenger conductor on the Erie Road.

Q. When did you first begin railroading? A. In 1869.

Q. With what railroad company? A. The New Jersey Midland.

Q. Had you ever been connected with any railroad before that at all? A. No, sir.

Q. When you began with the New Jersey Midland it ran from what point to what point? A. It ran from a place called Godwinville, or Wortendyke now, to Hawthorne; four miles.

Q. Did you begin as quick as the railway began? A. I was on the construction train before the passenger trains ran.

Q. So that you were connected with that railway while they were constructing it? A. Yes, sir.

Q. Hawthorne was a little place or a big place? A. A very small place.

Q. About how many people? A. I don't suppose there were fifty people there.

Q. It was on what railway? A. On the main line of the Erie.

Q. And Wortendyke, four miles away, what kind of a place was that? A. That had five houses and one cotton mill.

Q. It took its name from the cotton mill? A. C. A. Wortendyke, then president of the road.

Q. He was president of this little road? A. Yes, sir.

Q. About how many people did he employ in his cotton mill then? A. I suppose thirty or thirty-five.

Q. Do you know anything about the subscriptions, or

how the road was built, or anything except physically? A. No, sir.

Q. Physically, I suppose it was built pretty largely by hand labor, pick and shovel? A. Pick and shovel.

Q. They did not have any machinery in those days? A. None at all.

Q. The construction train you speak of, I assume was a little engine and a flat car; is that right? A. A little, small engine and four or five flat cars. The dirt was shoveled into the cars and put on the fill.

Q. What was this? A narrow gauge road or a standard gauge road? A. Standard gauge road at the time.

Q. When they began to run other trains, did they run them on to the Erie or did they run to the Erie? A. They ran them to the Erie.

Q. Then the passengers got off? A. Got off there and got on the Erie trains.

Q. Did they sell tickets over the Erie, or just tickets down to the Erie? A. They had no tickets in those days. They paid their fare from this Wortendyke station to Hawthorne and then bought tickets at the Hawthorne station on the Erie.

Q. Do you remember what the fare was which they paid? A. From Hawthorne down?

Q. Yes. A. Twenty cents, I think it was.

Q. Twenty cents for the four miles? A. Yes.

Q. When they first began to run trains for these passengers, did you begin to go on the train? A. I went on the first passenger train as a brakeman.

Q. How much of a crew did they have on that train? A. They had an engineer, fireman, conductor, and one brakeman.

Q. How much of a train was it? A. One car.

Q. What kind of a car was it? A. A combination, half for passengers and a small end for baggage or freight, whatever they wanted to put into it.

Q. They put their baggage or freight, whichever it might be, into that end? A. Yes.

Q. About how long was the business of this railroad done with this engine and car in this way? A. Eight or nine months.

Q. Was it run on regular schedules, or did they simply run up to connect with the Erie trains? A. I think they had two or three trains that made connections with the Erie; in between, we did the construction work.

Q. After eight or nine months, then what happened? What change took place? A. Then we ran from Hawthorne to Bloomingdale.

Q. That was how great a distance? A. Probably fifteen or sixteen miles.

Q. What villages or hamlets did you go through, besides Wortendyke, until you got to Bloomingdale? Any? A. Yes, we went through a place called Midland Park; that had one cotton mill and about thirty-five inhabitants.

Q. About how many people were employed in the cotton mill? A. There was a cotton mill but it was not running at the time. The cotton mill was at Wortendyke, the next station above. The next place was Wortendyke. They had just about the same number of inhabitants. There were five or six houses and this cotton mill, lampwick. They ran a stage from Wortendyke to Ridgewood in those days for the accommodation of people and charged them ten cents apiece for the two miles from this Wortendyke station to Ridgewood on the Erie. That is the only accommodation they had until this New Jersey Midland went through there. After that the stage was given up and the passengers patronized the New Jersey Midland, changing at Hawthorne for New York or Newark, wherever they wanted to go. In 1871, I think it was, they ran as far as Bloomingdale and on the passenger trains—two cars, I think it was—the travel was almost nothing. If we went from Bloomingdale to Hawthorne with twelve passengers, we had a big load.

Q. What about your freight? A. Freight, we had nothing; no freight at all, only what came from the cotton mill of Mr. Wortendyke probably eight or ten boxes

weighing two hundred pounds a week. Formerly that was carried through the woods two miles and a half to a place called Hohokus.

Q. On what road? A. On the Erie. The freight was carted to that point from Mr. Wortendyke's mill and delivered to the Erie. After this road got running, the New Jersey Midland took that and again transferred it at Hawthorne. He did not save a great deal. I guess he saved only in the haul. The mail was all carried that way.

Q. That is before, it had been carried by stage? A. Yes; it was carried by horseback from Wortendyke station, from Wortendyke borough over to the Erie, back and forth.

Q. After the Jersey Midland was built, then it was carried by this New Jersey Midland? A. By the Jersey Midland, yes.

Q. Then the substance of it all is that, whereas before this Jersey Midland was built, the Erie got the business by horseback or by stage or by team, after the Jersey Midland was built it got the same business by the Jersey Midland? A. Yes, sir.

Q. The Jersey Midland was just a feeder to the Erie? A. It was to Hawthorne, yes.

Q. Just a feeder to the Erie? A. Yes, but before the Jersey Midland was built, everything had to go by stage or horseback.

Q. How long did you continue on this New Jersey Midland? A. About nine years.

Q. By the time your nine years were up, how much of a system had it got to be? A. They got to running passenger trains by themselves.

Q. From where to where? A. To Middletown.

Q. From what point? A. From Jersey City.

Q. Did they run that over their own tracks all the way, or did they run it over the tracks of other companies some of the way? A. They ran over the Pennsylvania Road as far as Marion, New Jersey, out of Jersey City.

Q. Do you know about how far that was that they ran over the Pennsylvania tracks? A. Probably three miles.

Q. All that nine years they were running over the Pennsylvania about three miles? A. Yes.

Q. You do not know what the arrangements were with the Pennsylvania? A. No, sir.

Q. Then you came in over that three miles of the Pennsylvania tracks into what? The Pennsylvania station? A. Pennsylvania station.

Q. Take your train and start out of Jersey City and give us the principal places between Jersey City and Middletown that you served before your nine years were finished. Can you do that? A. The principal places?

Q. Yes. A. Yes; Hackensack was the next principal place; Paterson; then you struck nothing you could call a principal place until you got away up to Newfoundland; then Deckertown, Hamburg and Unionville. Then you have got them all.

Q. The next thing you came to was Middletown? A. Middletown, yes.

Q. Middletown was on the Erie? A. On the Erie and the Susquehanna or the New Jersey Midland.

Q. After it got there? A. Yes.

Q. Paterson was on the Erie? A. Yes, sir.

Q. How was it with Hackensack? A. Hackensack was represented by the New Jersey and New York road. I think that was an independent road.

Q. Did you run over that too? A. No, sir.

Q. You ran over your own rails? A. Yes, sir.

Q. Hackensack had a connection with Jersey City then by this New Jersey and New York road? A. Yes.

Q. How many of those places which you have named, between Middletown and Jersey City, had no other road except the Susquehanna? A. They had no road until they got to Franklin.

Q. That is coming down from Middletown, you mean? A. Yes. Then I think the D. L. and W. came in there, operated in there, I believe.

Q. Now from Middletown and Franklin what places did you strike? Any? A. Yes, Hamburg, Deckertown,

Johnsons; but outside of Hamburg and Deckertown, they did not amount to a great deal, small villages all of them.

Q. After you left Franklin, what places did you come to until you struck a railroad again? A. We had Ogdensburg, Newfoundland, Oak Ridge and Pompton, Pompton Junction; there the Greenwood Lake road was.

Q. There the Greenwood Lake road came in? A. Yes, crossed there.

Q. That was another road at that time? A. Yes.

Q. Now come out from that point on down and tell us what places you struck. A. Then we struck Oakland, Crystal Lake, Camp Gaw, Wycoff, Wortendyke, Midland Park, Van Winkles and Hawthorne. There we met the Erie. We met the Erie at Hawthorne and again at Middletown. The nearest point to the Erie to many of these parts, outside of Hawhorne, was two miles.

Q. Now come on from Middletown down and tell us what places you struck until you struck the railroad again. A. We got Hawthorne then and Riverside, then Paterson, Vreeland Avenue, Dundee's Lake, Passaic Junction, Rochelle Park, Maywood and Hackensack.

Q. How long was it, according to your recollection, from the time they began to run this combination passenger and freight car until they began to run a car that was just a passenger car without any provision for freight in it? A. I think it was in 1872 or 1873; I am not sure which.

Q. That they began to run a passenger car? A. Yes.

Q. Did they have a freight car in the same train, though? A. No, I think not.

Q. You think they began to separate the freight and passengers about 1872 or 1873? A. Yes.

Q. What did they run? A way freight train, or what? A. Ran a way freight train, yes.

Q. How long did they continue to run way freight trains? All the while you were there, the rest of the nine years? A. Yes.

Q. Were there any through passenger trains on this road except through to Middletown? A. No.

Q. This road began then down in Jersey City and ended at Middletown? A. The road began at Marion and ended at Middletown. They started from Jersey City.

Q. The trains ran from Jersey City, by running over the Pennsylvania tracks to Marion? A. Yes.

Q. And then running over this road to Middletown? A. Yes.

Q. And the distance from Marion to Middletown was about how many miles? A. Eighty-five miles; from Jersey City eighty-eight.

Q. It took about how long for your passenger trains to run from Middletown to Marion? A. About two hours; around two hours.

Q. Did these passenger trains, all of them, make all the stops, or did some run through without stops? A. We had one express, I think, that skipped a few stations; what it was, I do not know.

Q. At Middletown how near did you come to the Erie station, or the Erie tracks in that place? A. Probably twenty-five feet.

Q. You ran up practically to the Erie? A. Used the same depot.

Q. You had some arrangement with them by which you used the same depot? A. Probably; I do not understand that.

Q. But you did use the same depot anyhow? A. Yes.

Q. Just refresh your recollection about that running time and see how many hours you were. (Handing witness timetable) You have there a timetable for 1874? A. Yes, sir.

Q. What does it show your running time to be for your passenger trains? A. We had the express train that left Jersey City at 7.20 A. M., arrived at Middletown 11.40.

Q. How about the other way? A. We had a train leaving Middletown at 7.30 A. M., arriving at Jersey City 11.30.

Q. Were there any trains in the afternoon? A. Yes.

Q. What were they? A. A train left Middletown at 2 o'clock in the afternoon, arriving at Jersey City 6.30.

Q. How about it the other way? A. A train left Jersey City at 4.42, arriving at Middletown at 8.52.

Q. Do you find any other passenger trains on that timetable? A. Yes, sir.

Q. How many passenger trains do you find there? A. Altogether?

Q. Yes. A. Nine westbound and nine east.

Q. Each day? A. Nine each way.

Q. I say, each day? A. Each day, yes.

Q. Did they all run from Jersey City to Middletown? A. No, sir.

Q. How many of them ran from Jersey City to Middletown? A. Two each way a day.

Q. Those were the ones you have given us? A. Yes, sir.

Q. Did that make four out of the nine? A. Yes, sir.

Q. What about the other five? Where did they run to? A. They had one round trip to Paterson and four to Wortendyke; that is four trains, that is, eight round trips.

Q. Does that timetable show when it went into effect? A. November, 1874.

Q. That was at the time when you were on the road? A. Yes; November 2d.

Q. With your recollection refreshed by that timetable, would you say that gave accurately the scheduled running time of the trains? A. Yes, sir. I was a little short on time, saying two hours.

Q. How was it with the Erie at that time? Did the Erie make any better time between Middletown and Jersey City than the Midland could? A. That I cannot say.

Q. Which had the longer road? A. The New Jersey Midland.

Q. Can you tell us about how much longer? A. Yes, I think, probably 20 or 22 miles further.

Q. Than the Erie had? A. Yes.

Q. So that the Erie had easily the direct line to Middletown? A. Yes, sir.

Q. You have been over both roads to Middletown? A. Yes, sir. The Erie from Jersey City to Port Jervis is eighty-eight miles. The New Jersey Midland from Jersey City to Middletown is eighty-eight miles. Middletown is twenty-two miles from Port Jervis.

Q. So the Erie must be twenty-two miles shorter than the Midland? A. Yes.

Q. Middletown is in Orange County, New York? A. Yes, sir.

Q. You do not strike the New Jersey line until you get to what place? A. Unionville.

Q. Unionville is on the Jersey line? A. Yes.

Q. Which road is the easier road to run from Middletown to Jersey City? The Susquehanna or the Erie? A. The Erie.

Q. Why? A. They have a better roadbed, better engines, and less miles.

Q. Do you know whether this Susquehanna road still runs trains through to Middletown or not? A. They do, yes, sir.

Q. They always have then? A. Yes, sir.

Q. After your nine years with the Midland, you went to work for what road? A. The New York and Greenwood Lake.

Q. You worked for them how long? A. About ten years.

Q. Then you went to what road? A. To the main line of the Erie. I have been there twenty years.

Q. And you are running now over what part of the Erie? A. The main line of the Erie.

Q. To what place? A. To a place called Waldwick, six miles above Paterson.

Q. You are what on the Erie now? A. Passenger conductor.

Q. And have been all these years? A. Yes, sir.

Q. You are a passenger conductor on a local train that runs how frequently during the day? A. I leave Jersey

City at seven o'clock, run through to Waldwick, and leave Waldwick again in two hours, and go back to Jersey City, arriving there at 11.10 P. M.; leaving again at 11.59 P. M., arriving at Waldwick at 1.04 A. M. and staying there about six hours until the next morning—or the same morning—leaving there 6.48. I come over the Newark Branch.

Q. It is a train run very largely then for the accommodation of what are called commuters? A. Two regular commuter trains, five cars on every train.

Q. Pretty generally it is substantialy filled with commuters, as you call them? A. Yes, sir.

Q. In other words, it is substantially filled with passengers who buy either a yearly or a monthly ticket on which they ride every day, substantially, to and from New York on business? A. Yes; mostly on monthly tickets.

Q. When you were on the Midland, as you call it, running between Middletown and Jersey City did you have any of that commuter business? A. No, sir.

Q. The passengers then, were they through passengers going over your line to Middletown and then taking the Erie somewhere, or coming to Middletown and then taking your trains, or what were they? Local passengers? A. Local passengers, yes.

Q. Going to places like Unionville and other places that were not on the Erie? A. Yes. We had very few through passengers; very few.

Q. Can you give us any better idea than that of how few through passengers you had? A. We would start from Middletown with three cars. One would be a combination and smoker and the other two coaches. If we left Middletown with forty people we had a big train. We would lose half of those, more than half, coming down, at different points. At Wortendyke or Newfoundland we would pick up eight or ten and at Paterson we could count them on our fingers; at Hackensack the same way. If we would go into Jersey City with thirty-five passengers we had a good train, in addition to our mail and a few express packages.

Q. What thirty-five passengers would you reach Jersey City with? On an ordinary trip, about how many of them would be passengers that started in at Middletown? A. I could not say that, but there would not be many.

Q. Mostly these passengers were passengers that got on at Middletown and got off before they got to Jersey City? A. Yes. If anybody wanted to go to New York, they did not travel on the Jersey Midland. They took the Erie; and they were sensible in doing it.

Q. For what reason? A. They could travel faster; they would have a shorter route, twenty-two miles shorter road, and better facilities better cars. In those days we burned wood.

Q. On the Midland? A. Yes, sir; did not know what coal was.

Q. The Erie was already burning coal on its lines? A. Some of them; very few.

Q. In those days? A. In those days. We had candles in the top of the car; did not know what oil was. The brakeman used to save the wood ashes and sell it to the farmers out in the country; had the stove right in the middle of the car so the passengers couldn't kick it over.

Q. What would you say about whether the Jersey Midland was able to compete with the Erie at that time or not? A. I do not think they could do it.

Q. Did you try to get passengers from the Erie, or business away from the Erie? A. Yes.

Q. With what success? A. None.

Q. Why not? A. I have stood in Middletown myself and called "This way for the Jersey Midland to New York," and they would go right by and give me this (making gesture) that is the salute I got, as much as to say they knew which way they were going.

Q. The reputation of the Jersey Midland among passengers that wanted to go through was not high? A. No, not very amongst the natives and all. Everybody got stung up there. I got stung three months' back pay and haven't got it yet.

Q. You mean it went into the hands of a Receiver without paying your wages? A. That is it; three months.

Q. When did that occur? A. I cannot say now; 1874, around there, or 1875.

Q. You have told us about your experience in trying to compete at Middletown. Now come down to the next place where you struck the Erie; where was that? A. That was at Hawthorne.

Q. Were they able to compete with the Erie at Hawthorne? A. Hawthorne, we never got anybody at all, and I guess the Erie did not get any more.

Q. There was nobody to get then? A. No, sir; there was nobody to get.

Q. How about it at Paterson? A. At Paterson, we were two miles away from the Erie there. We were away on the outskirts. There was nobody there; we could count the houses around the New Jersey Midland depot there. You could look around and count them. Now you would want half a day to count them.

Q. It has grown there? A. Yes, sir, all up in that section to the east of the station.

Q. They were about two miles apart at that time? A. Yes, sir.

Q. And the Erie was in the heart of Paterson? A. Right in the heart of it, yes.

Q. And the Midland was away on the outskirts? A. Two miles away. They had a little jigger car that carried the passengers from the Midland down into the city. The driver collected the fares. They had a little coupon on the tickets that entitled them to ride on the little jigger car. The jigger car held twelve people.

Q. The jigger car was a car for how many horses? A. One horse.

Q. A one-horse car running from the Midland depot down to the Erie depot? A. Yes, sir; that did all the business.

Q. Between the two? A. Between the New Jersey Midland and the city. It was two miles and that little one-horse car did it all. The driver collected the fares. He would tie his lines around the brake and go in and get his fares.

Q. That was the extent of the interchange and competitive business at Paterson between those two roads? A. Yes, sir.

Q. Which got the best of that mighty traffic and fight? A. The Erie came out on top.

Q. Why? A. The other was right in the heart of the city where they could get it all. The poor old Midland was away on the outskirts.

Q. Did any other railroad reach Paterson at that time? A. The Delaware, Lackawanna and Western.

Q. Where were they with reference to the heart of the city? A. They were within two miles of the city, ran up against Garrett Mountain.

Q. How was it with them? Were they faring much better? A. No; they did not cater to the Paterson traffic at all. They stopped very few trains there, mostly through travel.

Q. What other places were there—I think you said Unionville—to Paterson that were struck by the Midland? A. Franklin.

Q. Franklin and Paterson were struck by the Delaware, Lackawanna and Western as well as the Midland? A. Yes, sir.

Q. To what extent did the New Jersey Midland and the Delaware, Lackawanna and Western come into competition at those places, if at all? A. At Paterson they did not come anywhere near each other, not within three miles. At Franklin they came right on to the same tracks, right at the same depot.

Q. How was it at Franklin as between the Delaware, Lackawanna and Western and the New Jersey Midland as to which would get the passengers and freight? A. I think it was a standoff between the two. I think they each helped one another. They depended on one another; that is, the Midland would bring passengers in and they would go on on the Delaware, Lackawanna and Western, and if the Delaware, Lackawanna and Western brought passengers in, they would take the passengers; local either way.

Q. If a man got on either train and started through, the other was not enough better to pull him off? A. That is right; but if there was any freight to go, the Delaware, Lackawanna and Western got it.

Q. When you got on to Paterson, so far as the Delaware, Lackawanna and Western was concerned, there was not enough exchange or competition for a jigger car? A. No, sir.

Q. Come down to Hackensack; I believe that is the last point that the Erie and Midland touch. How about there? A. At Hackensack, the station at that time was two miles from the New Jersey Midland station. Since that time they have built two stations in between. One is probably one eight or nine minutes' walk from the Hackensack station of the New Jersey Midland; but they have an interchange of tickets there that are good on either road.

Q. That is, you mean the tickets on the Erie are good on the Susquehanna and the tickets on the Susquehanna are good on the Erie? A. What I mean by that is, the monthly tickets, commutation tickets; also from Paterson on the Erie or Susquehanna, either one.

Q. How about Middletown? A. I do not think they are doing anything in the commuter business there.

Q. Do you mean that these tickets that are good on either road at Hackensack are the Erie, or are they the New Jersey and New York? A. New Jersey and New York; controlled by the Erie.

Q. That is operated by the Erie, as you understand it? A. Yes.

Q. How does that affect either of the roads, the fact that the tickets, the commuter tickets, are good on either road? What effect does that have one way or the other? A. We will start at Paterson. Tickets that are sold at Paterson on the Susquehanna Road have a red bar down each side. Those reading through from Broadway station or Paterson City are good on the Erie either way; but those tickets with those bars on are credited up to the Susquehanna Road, or the New Jersey Midland;

still, the Erie carries them. Those tickets are good from the starting point, say from Jersey City, but no line station. If a passenger holding those tickets got on at Hackensack he could not ride. He would have to start from a starting point, such as Jersey City.

Q. The effect of that is the same as if the Erie or the Susquehanna, either one of them, was running substantially all the trains? In other words, a man that holds a ticket good on either road can get any train on either road with that ticket? A. That is it, yes, sir.

Q. I assume the trains on the two roads do not usually run at the identical time? A. No; they do not.

Q. So that the net result is a man can go just that many more times with that ticket than he could if he took a ticket not good on either road? A. Yes, sir. If he misses the 10 o'clock on the Susquehanna, he can go and get the 10.40 on the Erie.

Q. And vice versa? A. Yes, sir.

Q. Does that work to the advantage of both roads or the disadvantage of either? A. It does not hurt either road, I guess, and it is a great accommodation to the people.

Q. You are on the Erie; how is it now about the Susquehanna and the Erie coming in competition, as to whether there is any change from the past in the way the roads are operated or otherwise, except as you have told us about the tickets being good over the two? A. The Susquehanna road has picked up wonderfully. Wherever its trains run through, places are built up. Where there were no towns or villages before, now there are. Take on the outskirts of Paterson, two miles from the Erie, it is the best residential and best populated district, I think, of the city; from the station east.

Q. In other words, the Susquehanna, from the local accommodtion it gives to people going in and out of New York, has built up its own suburban districts? A. Yes, sir.

Q. That it accommodates with this local traffic? A. Yes, sir. I do not think the Erie has had a thing to do with it at all. I do not see how it could. The Susquehanna have built it up themselves.

Q. So far as you can see, all the Erie has had to do with it is where those tickets are sold good on the two roads, as you have explained? A. That is it; yes, sir.

Q. Do you know anything about the freight business yourself? A. On the Susquehanna road?

Q. And the Erie, yes. A. No; I do not.

Q. You cannot tell about that? A. No.

Cross examination.

By MR. MCREYNOLDS:

Q. You started your railroad experience with the New Jersey Midland? A. Yes, sir.

Q. When? A. In 1869.

Q. That road extended from Jersey City to what point? A. Now?

Q. No; then. A. It did not extend anywheres. It was not built then. I was helping build it in 1869.

Q. It was completed when? A. In 1872, I think it was.

Q. What were its termini then? A. Jersey City.

Q. And the other end? A. Bloomingdale.

Q. When did it get to Middletown? A. The latter end of 1872 or 1873; I do not know which it was.

Q. The Erie came into Middletown and on to Jersey City? A. The Erie came through Middletown to Jersey City, yes.

Q. So the New Jersey Midland and the Erie both operated between Middletown, New York and Jersey City? A. Yes, sir; they both ran trains from those points.

Q. Both passed through Paterson, New Jersey? A. Yes, sir; two miles apart.

Q. What became of the Midland Railroad? A. The New Jersey Midland road?

Q. Yes? A. I do not know.

Q. Is there a road there now? A. The roadbed is there, yes.

Q. Who operates it? A. The New York, Susquehanna and Western Railroad.

Q. When did the New York, Susquehanna and West-

ern Railroad begin to operate it? A. I could not tell you. I was on a different road then.

Q. You know something about it? A. I have been away from the Midland twenty years.

Q. You have been on the Erie Railroad for twenty years? A. Yes, and eight or nine on the Greenwood Lake. They changed hands once or twice between that. I think the Oswego Midland came in there once.

Q. During these early days, while you were on this New Jersey Midland, they operated freight trains from Jersey City to Middletown? A. Not until a year or two afterwards; two years afterwards.

Q. After what? A. After 1870; 1872, they started in.

Q. Freight trains have been operated over that line ever since? A. I could not tell you. There was while I was there.

Q. At Middletown the New York, Susquehanna and Western extends further north, does it not, now? A. That I do not know. I understand the stopping point is at Middletown.

Q. For the New York, Susquehanna and Western? A. Yes. I do not know as they operate it west of Middletown anywhere.

Q. How far north do you run on the Erie? A. About thirty-three miles.

Q. From Jersey City thirty-three miles north? A. West.

Q. Was the passenger fare from Middletown to Jersey City over the Midland and the Erie the same in those early days? A. That I could not tell you. I had nothing to do with the trains. I was merely a brakeman.

Q. You do not know what it cost to ride in them? A. No.

Re-direct examination.

By JUDGE MOOT:

Q. When you speak of freight trains back in those early days, what were they? What kind of trains were they? A. They had what they called the way freight, and a night freight.

Q. What kind of freight did they carry? Through freight or local freight? A. Any kind of freight that came along; through freight, iron ore, limestone.

Q. What I mean is, did they have any cars or trains or engines that went on through over the Erie or any other way, or did all their own freight cars stay on their own tracks and simply draw freight between Middletown and Jersey City? A. That is all they did, local work between the different points.

Q. Local work between different points between Middletown and Jersey City. A. Yes, sir.

Q. Their own cars did not go off of their tracks? A. Not that I know of, no.

By MR. TODD:

Q. Do you know whether they did or not? A. I could not swear to it, no, any more than the Erie sent theirs over the Susquehanna in bulk.

By JUDGE MOOT:

Q. Your best recollection would be that the freight business of the Midland in those days was local freight business? A. Yes, sir.

(At 1.20 P. H. a recess was taken until 2.30 P. M.)

MARSHALL E. JOHNS, having been duly sworn, was examined as follows:—

By JUDGE MOOT:

Q. Please give your age, residence and occupation. A. I will be forty-nine years old the seventeenth day of April; my residence is 309 Park Avenue, Paterson, New Jersey; I am superintendent of the New York, Susquehanna and Western Railroad.

Q. How long have you been superintendent of the New York, Susquehanna and Western Railroad? A. Since September the 1st, 1904.

Q. Previous to September 1st, 1904, what was your position? A. Trainmaster of the west end of the line, from Stroudsburg, Pennsylvania to Wilkes-Barre, Pennsylvania.

Q. How long were you trainmaster operating or handling trains for the New York, Susquehanna and Western Railroad, between Stroudsburg and Wilkes-Barre? A. From September the 27th, 1894, until my appointment as superintendent on September the 1st, 1904.

Q. Previous to September, 1894, what was your position? A. I was general yardmaster at Paterson, New Jersey, in charge of the traffic between North Paterson and Vreeland Avenue.

Q. For the New York, Susquehanna and Western Railroad? A. New York, Susquehanna and Western Railroad Company.

Q. How long did you have that position? A. From November the 1st, 1899 to the time of my appointment on the Wilkes-Barre and Eastern as trainmaster September 27th, 1894.

Q. You were trainmaster then for the Wilkes-Barre and Eastern? A. No, my last mention was yardmaster.

Q. I appreciate that, but before that you were trainmaster of the Wilkes-Barre and Eastern? A. Yes, sir.

Q. And previous to being yardmaster of the New York, Susquehanna and Western Railroad at Paterson, what was your position? A. I was general yardmaster for the West Shore Railroad at Weehawken Terminal, and a conductor on the West Shore Railroad for about five years.

Q. You occupied those two positions on the West Shore and then the other for about five years? A. Yes, sir.

Q. Previous to that what was your position? A. I was passenger conductor and a way freight conductor on the New York, Susquehanna and Western Railroad and yardmaster at Paterson.

Q. And that covered what period of time? A. I was appointed yardmaster and conductor at Paterson May the 1st, 1882, and served in the capacity of yardmaster and way freight conductor and coal train conductor and passenger conductor from May the 1st, 1882 to about July, 1884, when I went with the West Shore Railroad Company.

Q. Previous to 1882 where were you at work, in what position? A. I was a brakeman on the New York, Susquehanna and Western and Midland Railroad of New Jersey. The name was changed between the time of 1880, July, 1880 and 1882; some time in 1881 the name of the road was changed from Midland Railroad of New Jersey to New York, Susquehanna and Western Railroad. I was a brakeman on the way freight and on different passenger trains running between Jersey City and Middletown.

Q. While we touch it, when the name was changed from the New Jersey Midland to the New York, Susquehanna and Western, the changed name represented the same identical road in the one case as the other? A. Yes, sir, the same road, and everything went right along just the same way. I have a notation here in my time book, made the 15th of July, 1881, "Changed name of road from Midland Railroad of New Jersey to New York, Susquehanna and Western Railroad."

Q. Previous to 1880 you were still working for the Midland? A. Previous to 1880 I was with the Montclair and Greenwood Lake Railroad, which was formerly associated with the old New Jersey Midland Railroad.

Q. When did you begin with the Greenwood Lake Road? A. Some time in July, 1876.

Q. And you continued with that road how long? A. Until the 3d of July, 1880.

Q. When you went with the New Jersey Midland? A. When I went with the New Jersey Midland.

Q. While you were with the Greenwood Lake, was the Greenwood Lake subject to the supervision or orders of the officials of the New Jersey Midland? A. It was subject to the orders of the train dispatcher. The Greenwood Lake trains had to run over the New Jersey Midland tracks for a distance of about half a mile, therefore they were subject to the orders of the New Jersey Midland Railroad and the train dispatcher hired the men on both roads, and the New Jersey Midland trains hauled the Montclair trains to West End and there cut them off, and the Montclair engine was applied there.

Q. By West End you mean where? A. That is right near Marion. At West End is the crossing of the Delaware, Lackawanna and Western, just half a mile beyond Marion where they leave the Pennsylvania Railroad.

Q. That is about how many miles west of Jersey City? A. About three miles and a half to the West End junction.

Q. From Jersey City? A. From Jersey City.

Q. Then this Greenwood Lake road, with the exception that you have stated, was a separate road, operated separately? A. It had been operated in conjunction with the New Jersey Midland Railroad. There was a "Y" connection from Riverdale to Bloomingdale, so that they ran the Midland trains over this "Y" and down over the Montclair Railroad, as it was shorter to reach Jersey City.

Q. About how much shorter? A. I should say about seven miles.

Q. Do you mean that all the trains from Middletown went that way so as to save that seven miles? A. The through trains and the milk train went that way.

Q. So that all the train movement there was over the Greenwood Lake road was the movement of these Midland trains? A. No; they had local passenger trains and service from Montclair Heights, and one train from Ringwood. There was a mixed train ran from Ringwood—I was brakeman on that train—and we left Ringwood with a combined car, and generally had cars of ore from Cooper and Hewitt's mines for Mountain View or Wayne, and there we delivered them to the Morris and Essex canal. We were also a way freight as far as Wayne. There we were a passenger train, from Wayne into Jersey City.

Q. This Greenwood Lake road, while you were with that, was operated as an independent little local road of its own, or how? A. It was operated as an independent road and it failed and went into the hands of a Receiver.

Q. While it operated as an independent road, who was connected with it? A. The only thing I can tell you about that is that some moneyed people by the name of Secors that formerly were connected with the T. P. & W. Rail-

road, as I understand it, put an interest in the Greenwood Lake Railroad, and I was employed through those people. They were friends of my brother.

Q. When the Greenwood Lake road went into the hands of a Receiver, that was about when? A. As near as I can remember, some time in either the latter part of 1877 or the early part of 1878. I have a notation here where February the 26th I sold back time $40, for one-fourth its value, $10.

Q. That was February of what year? A. That was February, 1878, I believe.

Q. That Greenwood Lake road was a road how long? A. It operated about thirty-five miles, up to July, 1876, and then it was extended to Cooper Station, Greenwood Lake, and its distance after extension was about forty-three miles.

Q. Has the New York, Susquehanna and Western anything to do with that road now? A. No, sir; nothing whatever.

Q. Has it ever had anything to do with it, so far as you know? A. Only from hearsay, that it was connected with the New Jersey Midland Railroad when it was built.

Q. What road controls the operation of that Greenwood Lake road now? Do you know? A. I suppose it is controlled by the Erie Railroad. Its terminal is at Jersey City in the Union Station.

Q. How long has the Erie controlled it, do you understand? A. The first train of the Montclair and Greenwood Lake Railroad ran into the Erie Jersey City station the first day of January, 1879. I was connected with the Greenwood Lake railroad at that time, when it changed from the Pennsylvania Railroad and went into the Erie terminal at Jersey City.

Q. At that time? A. Yes, sir.

Q. Previously it had run into the Pennsylvania? A. Pennsylvania Railroad.

Q. After that it ran into the Erie? The Erie.

Q. And it has continued to run into the Erie ever since? A. Yes, sir.

Q. That Greenwood Lake Railroad, just describe its business as to its nature and character, the kind of country it served and all that; give just as clear an idea as you can. A. When it extended its rails through to Greenwood Lake, it catered to the excursion business from all points along the line. They had a great many excursions from Orange and from Montclair and from Bloomfield, and then they started to haul ice from Greenwood Lake to Jersey City. Their first ice trains, the ice was loaded in gondola, not box cars, and covered with canvas. Then they catered to the commuter business that came to them in the small towns along the line as they grew up from year to year. They competed with the Delaware, Lackawanna & Western at Montclair and at Bloomfield. They were a competitive road with the Delaware, Lackawanna & Western, but their competition did not go very far because they had not money enough to run very many trains. The Delaware, Lackawanna and Western service was much better than the Montclair. There were some passenger trains that ran over the Montclair in the middle of the day at that time that were just one coach, and if there was any baggage it was brought up the steps and in the door and piled on top of the cushions.

Q. What other road, if any, aside from the Delaware, Lackawanna and Western, as you have stated, came into competition with this Greenwood Lake road in any way? A. No other road.

Q. What, if you know, was the reason for its ceasing to have any connection with the Jersey Midland or the New York, Susquehanna and Western? A. I have always heard that it did not pay, that they were glad to get rid of it. It was a load on their hands.

Q. I do not suppose you can tell us whether it is a paying road now or not? A. I do not know anything about it.

Q. This Jersey Midland, when you went to work for them in 1876— A. In 1880, the Jersey Midland.

Q. You went with the Greenwood Lake in 1876? A. Yes.

Q. When you went to work for the Jersey Midland in 1880, how much of a road was it? Where did it run from and where to? A. It was running from Marion, New Jersey, in the outskirts of Jersey City, to Middletown, N. Y.

Q. Did it run to the coal regions at all then? A. No, sir.

Q. What was its nearest approach to the coal regions at that time? A. Middletown, N. Y.

Q. Middletown, N. Y., is about how far away from the nearest anthracite coal mine? A. I should think 100 or 125 miles. I will say 150 miles.

Q. The nearest way of reaching those coal mines from Middletown would be to go by what road? A. The Erie Railroad.

Q. When you went to work for this New Jersey Midland, what was the character of its business? A. It was all a local business. The passengers were those that rode back and forth from one station to the other, or came from rural districts to a city like Paterson to do their trading or to a city like Middletown to do their trading.

Q. Some of them to New York? A. And down in the eastern part of the road they handled commuters to New York, men that did business in New York and lived in the rural districts.

Q. That is the passenger business they did? A. Yes, sir.

Q. Those passengers were carried on what sort of trains? A. They were carried, when I was there, on strictly passenger trains.

Q. Of about what size and equipment? A. A combined car and one or two coaches on the local trains, and on the through trains to Middletown, a combination baggage and mail car and smoker, and either one or two coaches. The passenger business from Middletown became so bad that one of the passenger trains was taken off and combined with the milk train in 1882, and a baggage and mail car and a coach were attached to the milk train from Middletown to Jersey City and back the next

day. The venture of running a through train from Jersey City to Middletown in the morning and back at night was a failure in 1882.

Q. It did not pay? A. No, sir.

Q. They tried it from when to when before they gave it up as a bad job? A. They tried it from a year and a half to two years, from about 1880 to some time in 1882, if I remember right; somewhere along there.

Q. What was the trouble? Were there no passengers in Middletown and that section or did somebody else get them? A. The passenger service from Middletown did not come by the way of the New Jersey Midland, because the through passengers—I say, the through passenger business did not come that way. It was too long a distance, much longer than the Erie Railroad, twenty-two miles longer, and the time of running was probably two hours longer, to make the trip over a single track, while the Erie had a double track railroad. The Erie also operated air brakes on their trains and the New Jersey Midland operated the hand brakes. The train was stopped by the brakeman with the hand brakes.

Q. At that time what do you say as to whether there was any real competition between the Erie and the Midland or the New York, Susquehanna and Western for passenger traffic? A. There was none whatever. The distance was much greater from Middletown to the other points. At Paterson the railroads were a mile apart and the only passenger business that the Susquehanna Railroad handled from Paterson were the residents of the east side of the city.

Q. How about them? How many were there of the residents of the east side? A. There were very few.

Q. It was not settled then? A. It was very scantily settled, mostly vacant lots around the station.

Q. How is that part of Paterson now? A. That part of Paterson is built up, almost solid.

Q. So that there is a good passenger traffic there now? A. There is an excellent passenger traffic there now.

Q. Does that passenger traffic seek the Susquehanna? A. Yes, it does seek the Susquehanna, because the Susquehanna is adjacent to that territory.

Q. Do they still run that little jigger car that Mr. Guyre told us about this morning? A. Oh, no, there is an improved trolley service all through that territory. The trolley runs from Paterson right direct to Hoboken. You can take the trolley if you wish.

Q. How about the jigger car? Did that jigger car continue to run between the two railway stations until the trolley took its place? A. It did, it ran from Broadway, Paterson, down town as late as—when I went with the Midland in 1880.

Q. As I happen to remember myself, trolleys did not cut much of a figure in this country until after 1890, somewhere about 1893 or 1894? A. I cannot recollect when the through trolleys were established there.

Q. But the jigger car kept running until the trolleys came in? A. That was probably continued running until about 1882, if I remember right.

Q. Then you think they dropped it? A. Then I think they dropped it and a more elaborate service was furnished, because the east side was building up at that time and would warrant it.

Q. They did have a better horse car service before the trolley took its place finally? A. Oh, yes.

Q. This horse car service, or this jigger car, was not just simply for the service of the two railroads, but was for the service of the city, if I get the right idea? A. I do not believe it would have been put in operation if the Midland Railroad had not extended its road to Broadway. It was practically run in connection with that, to take the suburban passengers that came to Paterson from the west end of the road to do their trading.

Q. To what extent were these passengers on the Midland or the Susquehanna Railroads anything more than local passengers? A. I do not believe they were anything more than local passengers or passengers that lived directly along the rails of the road, that wished to go

up to New York. The Erie Railroad is four miles shorter from Paterson than the Susquehanna, and their time is much shorter, and the man that could take the Erie Railroad naturally sought that road on account of quicker time. Another thing I would say, passengers were influenced by the terminal in New York. If a passenger desired a Cortlandt Street entrance to New York, or if he desired a Chambers Street entrance, he had his choice, to go over one road or the other, wherever it was most available for him in New York city.

Q. If he came by the Erie he could go either to Cortlandt Street or Chambers Street? A. No; if he came by the Erie he could get to Chambers Street; if he came by the Susquehanna, he could go to either Desbrosses or Cortlandt.

Q. That had a good deal to do with the passengers in choosing one road or the other? A. Yes.

Q. Then, if I understand you correctly, these railroads did not really serve the same classes of passengers, either local or otherwise? A. No, sir.

Q. They were not competing roads? A. The Midland Railroad was a road that had opened up a new territory, and the business that came to it was what developed. Each family that came there, of course, increased the freight that was sent to the local stations to provide for the daily consumption of food, and in that way the business increased, simply by additional residents.

Q. So that, broadly speaking, would it be true to say that both as to freight and passengers the Midland, and afterwards the New York, Susquehanna and Western, business was local business that grew as the suburban residents increased in numbers? A. Yes, and also as industries located along their track, or had track connections; that brought more trade there.

Q. At what places did industries begin to locate on the New York, Susquehanna and Western? A. At different points all along the line. Say a man would start in the lumber business and asked for a siding to ship his lumber in here to Paterson. The building of houses was increas-

ing there right along, and of course that would bring all kinds of materials to them, and there were several places of that sort started at Paterson and all the small places down along the line. Then there was the East Jersey Pipe Company established a business at Vreeland Avenue, at the outskirts of Paterson, and they furnished pipes for the East Jersey Water Company, to bring their new water supply into Newark and Jersey City, which brought a lot of business to the railroad. At Maywood two or three factories established themselves at that point, and also at Hackensack on the rails of the New York, Susquehanna and Western. At Bogota there was a paper mill established, and at Little Ferry Brewster & Son went into the building material business and coal business. That is the way it is all along the line. As the population grew, these industries grew.

Q. Those industries that grew up along the line of the Susquehanna in that way after it was opened, were they industries that could be served just as well by the Erie, or were they industries that were tributary to the New York, Susquehanna and Western, so to speak? A. I could not say why they located on the Susquehanna Railroad. I suppose that they were pleased with the situation and it seemed to be a good place to locate. One thing that caused them to locate there was the continual building of the property and houses, residences along the line. If there had not been the increase in population, there would not have been any need of these industries locating there.

Q. What I am trying to get at is whether, when they located along the New York, Susquehanna and Western, they located in such a way that the Erie could serve them just as well as the New York, Susquehanna and Western, or whether they located so that the New York, Susquehanna and Western was the natural road to serve them? A. The New York, Susquehanna and Western was the only road that could serve them.

Q. Along in those years, so far as you know, did the New York, Susquehanna and Western, by making lower rates or advertising, or in any of those ways, try to get

business away from the Erie? A. I never knew anything about the rates. I never heard that they did, because that was not in my department. I never heard it discussed.

Q. You never heard any such question raised? A. No, sir.

Q. Did you ever know yourself of any efforts being made in any way by the New York, Susquehanna and Western to get either freight or passenger traffic from the Erie? A. No, sir; it was always understood among the employes of the road that we had to take what came to us naturally.

Q. Did any Pullman cars run over the New York, Susquehanna and Western? A. No, sir.

Q. Do they yet? A. No, sir.

Q. It never has had any Pullman cars? A. No, sir; no occasion for them.

Q. Or sleeping cars of any kind? A. No, sir.

Q. Does it run any night trains? A. It runs a midnight theater train, twenty-three miles from New York.

Q. Out to what point? A. To North Paterson, every night but Saturday night, and Saturday night the theater train is extended to Butler, thirty-eight miles from New York; but no midnight train on Sunday night.

Q. Does it run any other night train except that theater train? A. It runs a train leaving Jersey City at 10.16 to North Paterson.

Q. The latest train that leaves Jersey City that goes to Middletown leaves at what hour? A. 4.34.

Q. How long has that been substantially the way the trains have been handled? A. That train has been running ever since—long before I came with the road.

Q. That is, long before you came to the road in what year? A. In 1880.

Q. That is, that theater train? A. Oh, no; you asked me what time a train was run to Middletown. That train leaves Jersey City at 4.34.

Q. Do you know how long they have been running a theater train on the New York, Susquehanna and Western, as you speak of their running it? A. I suppose they have run it right from the start.

Q. From the beginning? A. From the beginning. I have the timetable there I can consult.

Q. Do so. Whenever you can make a thing more positive by consulting documents, do so. A. Timetable of the second of November, 1874; it shows that the last train from New York was 8 o'clock P. M., and ran to Wortendyke, a distance of twenty-six miles, arriving at Wortendyke at 9.40 P. M.

Q. So they had no theater train? A. No theater train in 1874, according to this timetable.

Q. Or according to your recollection? A. Or according to my recollection.

Q. How do you think it would be down in 1880? A. In 1880 the last train leaving Jersey City, when I was a brakeman on that train, left at 8.12, except Saturday nights, when it ran four hours late, leaving Jersey City at 12.12. That was in operation from 1880 to 1882. That I remember because I was a brakeman on that train. Just one night a week it ran that way, on Saturday night, and the other nights in the week the train was an 8.12 train. It only went to Paterson, Broadway.

Q. Back there in the 80's, about how late in the evening would a train leave Jersey City for Middletown via the New York, Susquehanna and Western? A. If I remember right, between 1880 and 1882 the Middletown train left Cortlandt and Desbrosses Street at 4.30 and Jersey City at 4.42, and arrived in Middletown about 8.15, as near as I can recollect.

Q. Taking about how many hours to make the run? A. About four hours, a little over four hours.

Q. Do you know what time it was taking the Erie to make the same run from Middletown to New York at that time? A. I judge their time was probably two hours or two hours and a half on their fast train.

Q. That is your best recollection? A. Yes, sir.

Q. They had a fast train? A. Yes, sir. This train that left New York at 4.30 was practically a train that took out the New York people for the suburban towns and picked up passengers at Paterson that had come there to

do their trading, and then local people along the line from one station to another. I was a brakeman on that train and in 1880 they would probably go into Middletown with a dozen passengers.

Q. About how many passengers would they have in and out of Paterson at that time? A. That train would leave Jersey City with about three coaches, and they would stop at Hackensack and Paterson, and then probably pick up twenty-five or thirty people at Paterson, or perhaps as many as that at Hackensack and Paterson.

Q. Altogether? A. Altogether, yes.

Q. Would they pick up many at Hackensack? A. There were generally two or three lawyers that attended court at Hackensack that would patronize that train, that went to Paterson.

Q. That was about the extent? A. That was about the extent of the business there. Hackensack was the county seat.

Q. Back in those years in 1880, 1881 and 1882, how was it as to the relative income of the road, as far as you can judge, as to whether it came from freight or passenger, or could not you tell us about that? A. I should judge that the greatest revenue came from milk and freight. Their passenger business was very poor, so very poor that there was no service given, no passenger service only just what was absolutely necessary.

Q. Just accommodation? A. Just accommodation. They could not go out of their way to give any more service.

Q. Did they run milk trains in those days? A. Yes, sir.

Q. Was it a combination milk train and something else? A. As I told you, along in 1880 the milk train ran alone and there was a passenger train ran from Middletown, and some time between that and 1882 they combined the milk train and the passenger business on account of not paying, from Middletown.

Q. On account of the passenger business not paying? A. The passenger business not paying. I could not tell

you just exactly what time but some time in those years. I know I was conductor on the milk train in 1882 and it was a combination train at that time.

Q. Give us an idea of the extent of the milk business, as nearly as you can, when you were conductor of the train. A. We left Middletown and stopped at Slate Hill, Johnsons, Westtown, Unionville, Quarryville and Deckertown, and there were two or three little milk sheds at road crossings between Unionville and Deckertown; and the milk business ran out at Hamburg.

Q. That is about how far from Jersey City? A. Hamburg is about sixty-three miles from Jersey City.

Q. So that your milk that you got was gathered between Middletown ——. A. And Hamburg.

Q. Where was it brought to? A. Brought to Jersey City, in the Pennsylvania station.

Q. You came down to Marion and there you went on to the Pennsylvania tracks? A. Pennsylvania tracks, yes, sir.

Q. And into the Pennsylvania depot? A. Pennsylvania depot.

Q. Is that the way they do it yet? A. No, the milk train runs into the Erie now.

Q. How about the other trains now? A. The train that gathers up the way freight in the evening runs into the Erie station.

Q. At Jersey City? A. At Jersey City. When they formerly ran into the Pennsylvania, they only had one freight pier that they could deliver freight to, Pier 16 at New York, but it is now arranged so that the freight that is assembled from the New York, Susquehanna and Western Railroad can be distributed to probably a dozen different terminals in New York that are owned by the Erie, which is a great advantage to the patrons.

Q. So that the New York, Susquehanna and Western changed its freight business, as you speak of it, from the Pennsylvania depot to the Erie depot for that reason? A. Yes, sir, and also the milk trade.

Q. The balance of the New York, Susquehanna and

Western business is still done through the Pennsylvania depot over the Pennsylvania tracks to Marion? A. Yes, sir, the passenger business.

Q. About when was the change made, if you can tell us, by which the milk train and the freight trains were changed from the Pennsylvania depot to the Erie depot? A. They were changed while I was trainmaster on the Wilkes-Barre and Eastern, but I should judge that they were changed after the Erie Railroad took the New York, Susquehanna and Western Railroad.

Q. After the Erie Railroad bought the stock of the New York, Susquehanna and Western Railroad that it bought, then you think the milk train and freight train was changed over to the Erie terminals, as you stated? A. Yes, sir. I was not on this end of the road, but I should judge it was that time.

Q. Would you have any way to-night of making certain on that point by looking at your records or anything? A. I can look through the records, yes, sir. There was a fire in our office in Jersey City which destroyed all records prior to 1902. Mr. Smith will know that.

Q. Does the New York, Susquehanna and Western have to pay the Pennsylvania anything for the use of those tracks and that depot? A. Yes, sir, a very heavy charge.

Q. How much? A. $50,000 a year for trackage.

Q. Has that been so ever since you have known about it? A. Yes. It was more than that until the Erie took over the freight and the milk train.

Q. It was? A. Yes, sir.

Q. Do you know how much it was before they took over the freight and milk train? A. I could tell you by looking at the contracts. I know it was more, but the terminal charges were reduced by the Erie taking the freight and milk in their terminal.

Q. The Erie station in Jersey City and the Pennsylvania station in Jersey City are separated some distance from each other? About ten minutes by horse car, by trolley.

Q. The Erie station being that distance north of the Pennsylvania station, on the western side of the Hudson River? A. Yes, sir.

Q. If I understand you correctly, all the passenger trains on the New York, Susquehanna and Western still run into the Pennsylvania depot? A. That is correct.

Q. But none of the freight trains, or how is that? A. None of the freight trains run into the Pennsylvania terminal.

Q. All the freight trains of the New York, Susquehanna and Western now run where? A. They run into the Erie station. So far as freight going that way is concerned, some of our freight trains run right direct to Edgewater, our own terminal. Our coal all goes to our own terminal at Edgewater, and we have a lot of other freight for industries that are located on our line at the river front at Edgewater, so that freight which is consigned to those parties goes to Edgewater; but New York freight goes into the Erie terminal, or any freight for different piers in Brooklyn or anywhere in New York.

Q. Has the New York, Susquehanna and Western any freight terminals of its own in Jersey City conveniently located to carry strictly New York freight to New York? A. It has not, no, sir.

Q. Has it any passenger terminals in Jersey City in which to receive and discharge passengers that are strictly New York passengers? A. No, sir.

Q. Is it dependent still on the Pennsylvania for passenger terminal facilities, that is, for New York? A. That is correct, yes, sir.

Q. And it is dependent now on the Erie for its strictly New York freight? A. And milk business.

Q. As to the business up at Edgewater, Edgewater is about how far north of Jersey City? A. The yard is located about opposite 116th Street in New York.

Q. That would be about how many miles? A. I should think five or six miles.

Q. About five or six miles away from the Erie depot in Jersey City? A. Yes, sir.

Q. That is the point then at which the New York, Susquehanna and Western has its terminal facilities that really belong to itself? A. Yes, sir; Edgewater, N. J.

Q. How long has it had terminal facilities there? A. Since the latter part of 1893, I believe, as nearly as I can remember.

Q. Have you any way of fixing the thing at all definitely? A. I have a timetable marked "Timetable No. 1" of the Edgewater Branch in my office, and it was some time in the latter part of 1893, I believe.

Q. How does the New York, Susquehanna and Western get its trains to this terminal at Edgewater on the westerly side of the Hudson, when there is such an elevation between the Hudson and the lines of the New York, Susquehanna and Western Railroad in New Jersey? A. There is an ascending grade on the Meadows just east of Little Ferry station that they ascend and go through a tunnel, pass through the tunnel and reach the river front.

Q. How much of a tunnel is that? A. It is about 5000 feet long.

Q. When was that erected? A. That was built some time in 1893, previous to its being put in operation.

Q. At what expense? A. That I cannot say. I have heard it cost about $2,000,000.

Q. Have you any way, from your records or otherwise, of ascertaining what that expense was? A. That would not have been kept in my office.

Q. Could you not get it to save calling another witness? Could you not get it from somebody? A. Possibly I could call on somebody for that. I was the yardmaster at Paterson when this fill was being made and the tunnel was being cut through, and I had charge of the gravel trains that moved the gravel down there to the fill. As nearly as I can recollect, it was about in 1893, that that work was begun on.

Q. Has any other railroad any tunnel that lets it through this elevation so that it can reach Edgewater too, by which it can get through this little hill and reach the terminals at Edgewater? A. No, sir.

Q. Has any other railroad any trackage rights over the New York, Susquehanna and Western, so that they can reach these terminal facilities? A. No, sir; nobody but the New York, Susquehanna and Western reaches the terminal.

By MR. MCREYNOLDS:

Q. Do you mean that no other railroad gets into Edgewater? A. No other railroad into Edgewater, no, sir. Our tracks are 5000 feet each way from the tunnel.

By JUDGE MOOT:

Q. You have tracks running up the river 5000 feet? A. And down the river about 5000 feet.

Q. Your tracks extend up and down the river at Edgewater nearly two miles? A. Yes, taking in each direction, north and south.

Q. Are there industries over there? A. A large number of them.

Q. How long have there been industries there? A. There were some of them that were located there previous to the New York, Susquehanna and Western going in there; but very few of them.

Q. I wish you would name, if you can, the ones that were there before the Susquehanna went there? A. I can name the ones that have located there since they came in more readily.

Q. That will do just as well. A. The Pyle's Pearline plant was erected during the years 1902-1904 and opened for business immediately upon completion. J. T. and W. S. Pyle; called Pyle's Pearline plant.

Q. How many men do they employ? A. They employ about one hundred men.

Q. Is there any other railway serving them except the New York, Susquehanna and Western? A. No, sir, the Susquehanna entirely. They have track connections direct with us.

Q. Take the next one. A. Barrett Manufacturing Company. This plant was erected about thirty years ago. The nature of their business is coal tar products. They

employ about two hundred and thirty employes; have track connections with our company.

Q. But no other railroad? A. No other railroad.

Q. It is true of all those there at Edgewater, that they have not any connection with any other railroad; is that so? A. That is correct.

Q. Go on, tell about the rest of them. A. The General Chemical Company; they employ about four hundred. The plant was erected in 1850. They are right on the water front. New York Glucose Company; that plant was established in 1901, after the New York, Susquehanna and Western Railroad had built in there. The nature of their business is all corn products, such as sugar, glucose, starch, with the exception of whiskey. The number of their employes is six hundred and fifty. They have direct track connections with the New York, Susquehanna and Western Railroad. They have their own locomotive there. Consolidated Gas Company, now the New York Edison Company, established in 1903. Nature of the business, coal storage. They have two trimmers and dock frontage. Capacity of plant, about two hundred thousand tons. They receive their coal from us and have about fifteen employes.

Q. They have a large output for a small number of employes? A. It is a storage plant for coal.

Q. Next. A. The Valvine Oil Company. I cannot say just how many employes they have, but they have a private siding at Edgewater and bring in their oil by the carload and their freight by the carload, and cart it to their plant. I cannot say how many employes they have, but they have a large number.

Q. Do they have a large freight traffic over your line? A. A large freight traffic, yes, sir. The Henners planing mill; that was established in 1883. The nature of their business is lumber, molding, building supplies; thirty-six employes. They ship a large amount of freight over our road and cart it to their factory. The Warner Sugar Refining Company; their plant was erected about 1898. They have about seven hundred employes. That number in-

cludes employes in all departments, the coopers' shop and stevedores. The nature of the business is sugar refinery, and they cart a large amount of freight from our freight tracks. We will have direct track communication with them as soon as we complete the track; the same with the Henners planing mill, we will have direct communication with them as soon as we complete the tracks.

Q. The next one? A. Then there is the New Jersey and Hudson River Ferry Company. We supply them with coal for their ferry boats. Then there are just minor concerns that cart freight, truck freight, have it come in small quantities and cart it to their different places.

Q. About how many men all told are employed in those industries that have their sole railway connection with the New York, Susquehanna and Western? A. I should judge between two thousand five hundred and three thousand men are employed over in that territory.

Q. Of that number, about how many of those men have become connected with such industries as employes since the New York, Susquehanna and Western tunneled through and furnished railway connections? A. I should say two thousand five hundred of them; that is an estimate.

Q. Do you know how much land the New York, Susquehanna and Western owns there at Edgéwater in connection with these terminals at Edgewater? A. They own the right of way down through these properties, to reach them, and they own right to the river front from the tunnel, where the coal docks are situated.

Q. You have not any idea of what the acreage is? A. I could not exactly say.

Q. Have you any idea of what the value of those terminals at Edgewater really is, yourself? A. I should think they were worth two or three million dollars; very valuable property, in my idea.

Q. It is opposite 126th Street in New York? A. No, about 116th Street. I think it is about directly opposite, the mouth of the tunnel and then of course they extend up as far as 130th Street.

Q. So that all the freight that comes through that tunnel to your Edgewater terminals, from the minute it is brought through that point, is where it can be transferred to lighters or barges or vessels and delivered at any point in New York or Brooklyn? A. No, we do not make any such delivery.

Q. I know you do not, but it is where it can be done? A. Yes, sir, it can be provided for at that point.

Q. Anybody that wanted to locate in connection with your terminals at Edgewater, would be in position with water delivery to supply any point in New York or Brooklyn? A. Yes, sir. But we do not do that; they are so they can do it.

Q. About what proportion of the land at Edgewater is now covered with industries and about what proportion of it is still vacant, so that industries can locate there? A. It is pretty well filled up towards the south extension. There is room for a few more industries at the south extension, but there is room for more in the north extension.

Q. Having three thousand then at work there now, if it was all built up, the industries would altogether furnish —— A. I should think they could employ at least ten thousand men if it was all built up.

Q. Have you any idea of how much freight you draw in a day to those industries in Edgewater alone? A. It is according to the time of the year or the business that they are doing. We might say some days we would bring in fifty cars of freight there and distribute them to those industries, and then we might take thirty cars of freight out of there for those industries to be distributed, sent all over the country, wherever their product is sold. I have seen days that the New York Glucose Company would bring in fifty cars of corn in one day, but there is no stated amount.

Q. Could you give us any idea of the average amount of freight, the number of cars of freight, hauled in and out of those industries? A. I would not want to quote the average, but I can tell you pretty well from observa-

tion, without looking at records; possibly say sixty cars, thirty in and out each day.

Q. As an average of freight handled there? A. Yes, sir, not counting coal.

Q. The coal that passes over the New York, Susquehanna and Western also goes to Edgewater? A. Yes, sir.

Q. When it gets to Edgewater what is done with it? Does it stand there? A. It is placed on the docks and dumped into barges or steamers, any lighter that carries coal.

Q. That is the place where the coal carried by the New York, Susquehanna and Western is delivered to the customer to whom it is consigned, or who had ordered it? A. Yes, sir.

Q. Does the New York, Susquehanna and Western itself deliver its coal by barge, or does it leave that to the consignee or customer? A. The customer generally sends his boat there and loads it.

Q. Have you any idea of the amount of coal in carloads handled at Edgewater? A. We dumped two hundred and twenty-four cars yesterday.

Q. How is that, above or below the average? A. The average is about one hundred and seventy-five cars a day. That is according to how orders are running and the weather conditions and the demand for coal. One day this week previous, I believe we dumped two hundred and forty.

Q. That is partly because the coal business is more active in April, when the discount is made? A. Yes, sir. April is a very large month. You might say that we would average one hundred and fifty cars a day, under normal conditions.

Q. The year round? A. Yes, sir.

Q. Cutting out Sundays, I suppose? A. Cutting out Sundays. We work once in a while on a Sunday, but not as a rule.

Q. Does this number of cars handled mean that you handled that many for the New York, Susquehanna and

Western alone, or that some of them were Erie cars? A. Most of them were Erie cars. If we had nothing but New York, Susquehanna and Western coal to handle, we would not unload very many, because the bulk of the New York, Susquehanna and Western output is to serve line orders along the line, which are very heavy at different stations. The business has grown so along the local points that it takes a good many cars to supply the inhabitants of that territory.

Q. So that the Susquehanna business pure and simple that would come through from the mines to Edgewater would be very small? A. Very small indeed; just what is left after serving the local points.

Q. You said the bulk of those cars you were handling in Edgewater were Erie cars; have you any idea of about what proportion of the cars? A. Seventy-five per cent., I should judge; possibly a little greater percentage.

Q. Where do those Erie cars strike the New York, Susquehanna and Western so as to go to Edgewater? A. Some of them are given to us at Hillside Junction, that they cannot haul, and some of them come to us from the Erie Railroad at Passaic Junction. They run their trains right in solid to Little Ferry Junction yard.

Q. When you say some of them are given to you at Hillside Junction that they cannot haul, you mean if they become congested or anything of that kind? A. Yes.

Q. Then they turn the surplus over to you at Hillside Junction? A. Turn it over to us; they cannot handle it. Of course, when I speak of the New York, Susquehanna and Western coal proper coming to Edgewater, I did not include what the Erie turns over at Hillside Junction, which we run over our line and which is purely Erie coal.

Q. Would that which you get at Hillside Junction and bring down be in the twenty-five per cent. you figured as New York, Susquehanna and Western coal, or in the seventy-five per cent. you figured as Erie coal? A. That would be in the seventy-five per cent.

Q. That you figured as Erie coal? A. Yes, sir.

Q. Then that part of the business amounts to this;

that the Erie brings its own coal down to Passaic and turns it over to you, to go to Edgewater, unless it has been congested, in which event it turns the surplus it cannot conveniently keep, over to you at Hillside Junction, and you bring it down? A. Yes, sir. It also has to turn over its coal to us to supply the local points that we would not have the coal to supply if we did not get it from the Erie.

Q. Local points like what places? A. Every station along the line that consumes coal; say Butler, Wortendyke, Paterson, Passaic, Hackensack, and the paper mills at Bogota and the Babbitt Soap Works.

Q. Where? A. At Babbitt Station on the Meadows. The New York, Susquehanna and Western road would not have coal enough of its own, from its own tracks, to supply all these local points unless we received it from the Erie.

Q. Where are the Erie coal terminals, the Erie proper? A. Weehawken.

Q. Which way from the Edgewater terminals? A. South of there.

Q. About how far south? A. I should judge four or five miles.

Q. When the Erie turns its cars over to you at Passaic to draw to Edgewater, you have a haul of about how much over the Susquehanna? A. About eight miles.

Q. That you are paid for by the Erie on what basis? *Pro rata* or how? A. By the tonnage basis. They handle their own trains.

Q. They handle their own trains? A. Yes, sir.

Q. That is, they send their train right over your tracks? A. Right over our tracks, and leave the coal at Little Ferry Junction and take the engine and empties and go into Bergen, their own terminal.

Q. What does the Erie pay you for being permitted to send its own engine and crew and cars over your lines from Passaic Junction to Edgewater, as I understand it? A. I do not know what the charges are.

Q. That is outside of your department? A. That is not in my department.

Q. You are operating, not financial? A. Yes, sir.

Q. When their cars are dumped, do they haul them out or do you haul them out for them? A. They haul them out, and they also haul a good many cars empty back that we bring in loaded.

Q. They haul back over their line a good many empty cars? A. That we bring in loaded over our line.

Q. Why is that? A. Because they have lighter grades westbound than we do and heavier engines, and they can haul more empty cars west than they can loaded cars east.

Q. Your own grades going west are heavy? A. Very severe; yes, sir.

Q. Are they compelled to use pushers? A. Yes, sir, we have pushers in some parts of it or combine three engines in one train. We have three grades seventy-five feet in the mile and one eighty feet in the mile, for twenty-two miles, from Stroudsburg to Pocono.

Q. Going west? A. Yes, sir.

Q. How is it in the anthracite business? To what extent do the coal cars that come down loaded with coal get a return load of freight? A. They go back light. They always go back empty.

Q. You say always; would you make any exceptions? A. I would not make any exception. I have known times when you would load a frog, or some piece of material, in one of these coal cars and it would invariably become lost, all go to the mines. Everybody would take it for an empty. So that we do not load anything into the coal cars. They go back empty.

Q. There is no traffic up there in the coal regions that can be sent back in one of these coal cars? A. No, sir.

Q. Has that always been the case with this coal traffic? A. Yes, sir; the only time that we ever send anything back in a coal car would be our own commodity, say load it with ties, a full carload of ties, to be distributed for our right of way, or with ashes; in such cases as that, but no other case.

Q. For what purpose would that be? A. That would be for the company's use only.

Q. So they would not get any paying freight? A. No, sir. You cannot use the coal cars for anything. The consignees would object to it. If you undertook to give them a coal car to load brick in, they would not have it. They would not accept it.

Q. Because it colors it? A. Because the sides of the coal cars are so high they could not handle the commodity over them.

Q. Your coal cars that you use to bring the coal down are mainly of what type? A. They are of several types. The new cars are the high side steel cars, and then we have some of the old wooden type, probably three and a half or four feet high at the side.

Q. These steel cars that are mainly used now are how high on the side? A. They are most as high as a box car.

Q. Six or eight feet? A. They must be eight or nine feet high.

Q. Those cars have been pretty generally used about how many years, those steel cars? A. Probably four or five years, they have come into service.

Q. This coal that the Susquehanna draws, comes from the Wyoming Valley south of Scranton? A. Yes, sir.

Q. What they call the Lackawanna Valley? A. The Lackawanna Valley, yes, sir.

Q. It is that part of the Wyoming Valley that they commonly call Lackawanna Valley? A. There is the Wyoming Valley and the Lackawanna Valley. It is one valley, practically.

Q. It is part of the Wyoming region, what they call the Lackawanna Valley? A. Yes, sir.

Q. And that is the part south of Scranton? A. South of Scranton.

Q. How is it about being north of Wilkes-Barre? A. It is about thirteen miles north of Wilkes-Barre, the terminal of our road.

Q. So that the coal hauled over the Susquehanna comes, substantially all of it, does it, from the part of the coal region between Scranton and Wilkes-Barre? A. Yes, sir.

Q. Between Scranton and Pittston? A. Scranton and Wilkes-Barre; Pittston lies between Scranton and Wilkes-Barre.

Q. Does most of the coal come from north of Pittston and south of Scranton? A. Most of the coal comes from south of Scranton right in the vicinity of Pittston, southeast of Pittston.

Q. The railroads that run into that valley, that Wyoming region there, are any of them able to get coal out to New York without crossing a mountain range? A. No.

Q. They all have to cross a mountain range? A. They have to pull it up from the valley, up to the top of the hill to get it out of that valley.

Q. Do you know about how many hundred feet they have to lift it up to get it out of that valley before they can begin to draw it down towards New York? A. I cannot say anything about the elevation of the other railroads, but I can say that before we get it out of the valley it has to be hauled to Pocono Summit. That is about eighteen hundred and seventy-eight feet above tide, and I think the mining district is about four hundred feet above tide. That would make about fourteen hundred feet that it would have to be raised out of that valley before it is ready to go down hill.

Q. And about how many miles? A. It is forty-two miles from Moosic to Pocono Summit, the top of our grade.

Q. So that in forty-two miles you raise it that number of hundred feet? A. About fourteen hundred feet.

Q. Some of it you do not haul forty-two miles to raise it fourteen hundred feet? A. Yes, I guess everything we handle.

Q. Runs about forty-two miles? A. Yes, about that much.

Q. Before it gets to the top of the summit? A. Before it gets to the top of the hill.

Q. Do you have to cross more than one summit? A. Yes. The first summit is Ash Gap eighteen hundred and fifty-seven feet high.

Q. That is at Pocono? A. That is seventeen miles from Pocono. Then there is a varying grade from Ash Gap to Pocono Summit in that seventeen miles, although there is very little difference in the ascent between Ash Gap and Pocono Summit. Then you go down hill into Stroudsburg about twenty-two miles.

Q. Then what? A. Then you have three hills to go up after you leave Stroudsburg.

Q. Three different ones? A. Three different hills.

Q. Do you go up them and down them and up them? A. Yes, sir, a broken grade.

Q. You have to climb and go down and climb again three different times? A. Yes, sir, and at the foot of Oakland there is a pusher there to push the trains up; there is a grade of fifty-nine feet to the mile there.

Q. As a railroad man, that is a pretty good grade, is it not? A. Oh, yes, a good grade.

Q. About how many feet high are these three different hills you have mentioned? About how many feet do you have to raise to get over each one of those? A. The Washingtonville hill is thirty-seven feet to the mile.

Q. About how many feet all told do you have to climb there? A. I will tell you the miles.

Q. All right. A. About seven miles.

Q. About seven miles, about thirty-seven feet to the mile? A. Yes, sir.

Q. Then the next one? A. The next one is fifty-two and eight-tenths feet to the mile.

Q. About how many miles? A. About eight miles.

Q. The next one? A. The next one is fifty-nine feet to the mile.

Q. About how many miles? A. That is a very short distance there, two and four-tenths miles. That is where we have the pusher.

Q. About how many cars can an engine such as they use to-day, an ordinary engine, haul from the valley where this coal is obtained to Edgewater without any help? A. They leave Moosic with about six cars, with one engine, but we have three engines in the train.

Q. Three engines in a train? A. Three engines in a train.

Q. To get over Pocono? A. No, these three engines haul the coal to different summits and then the through coal trains go along with a single engine and pick up a few cars at each summit until they reach Pocono Summit, and then they fill up to all they can pull over that hump there.

Q. Go back to the mine, pick up some cars and follow it to Edgewater. A. Take one engine. One engine will haul about six cars from Hillside Junction, or Moosic, to S. C. R. R. Junction, a distance of five miles. There they pick up about two cars more and go to Ash Gap, a distance of about fourteen miles. There they again take on two or three cars more and proceed about a distance of seventeen miles. There they again take on eight or nine more cars and proceed to Stroudsburg. Then you change crews there and you will take about twenty-two cars from there to Blairstown, a distance of nineteen miles, and there you will cut down to probably sixteen cars, according to their size; you take that train to Sparta and there you will cut down to about ten or eleven cars.

Q. How many miles is that, to Sparta? A. From Blairstown to Sparta?

Q. Yes, about. A. Sparta is fifty-nine and nine-tenths and Blairstown is eighty-two and six-tenths, is about twenty-two miles.

Q. Then what? A. You take that train to Summit, about nine miles, and there you fill out to a full train, that a pusher can push you up Oakland with; about twenty-two or twenty-three cars.

Q. You have a pusher help you up? A. Up Oakland. That is the extent of your train. That used to be, with the uniform cars, small cars, about thirty-two cars that you would leave Summit with and have the pusher shove you up Oakland.

Q. When you get up Oakland, then where do you go? A. Then you go on down and leave your Paterson cars and your Passaic cars and go on into Edgewater.

Q. Which is how far from Oakland, about? A. About thirty miles.

Q. With the exception that you gave us, of the pusher up Oakland, as I understand you, one engine would do the work of hauling this train? A. As I described it, but you have to have pusher engines, other engine service to haul this coal up to the summit for these other trains. They keep hauling this coal in short hauls from one summit to the other.

Q. Other engines keep hauling up extra cars on to these summits so that when your engine comes along there with its train it can fill out from time to time, as you have stated, from the extra cars on the sidings? A. Yes, sir.

Q. Those modern cars that you had in mind carry about how many tons? A. Fifty tons.

Q. You mean twenty-two hundred and forty pounds, I suppose, your tons? A. Yes, sir; mine weight.

Q. These are all open cars that you use on the Susquehanna? A. All open, yes, sir.

Q. These smaller cars that you speak of that were in use a few years ago, where they would take about thirty-two, that you now put in what, twenty? A. Twenty-one or twenty-two?

Q. Those smaller cars held about how many tons? A. There were two or three different classes; there were the 30,000 capacity, 40,000 capacity, 50,000 capacity and then 60,000.

Q. You are speaking of pounds I suppose? A. Yes.

Q. This change to these heavier cars that will haul fifty tons apiece, has come about within how long a period of time? A. Within the last five or six years.

Q. How about the engines used now as compared with the engines used before? A. The same engines we had before.

Q. The engines have been practically the same for about how many years? A. The engines we have in the coal service have been with us since we opened the Wilkes-Barre and Eastern Division.

Q. When was that? A. That was in the latter part of 1893.

Q. Those engines are engines of what weight and about what hauling capacity? A. The ones I speak of weigh 138,000 pounds.

Q. They haul about how many tons? A. We do not handle them by tons.

Q. How do you handle them? A. We handle them by the cars.

Q. They will haul about how many cars, those 138,000 pound engines? A. They will only haul six cars out of Hillside Junction.

Q. It depends on the grade? A. On the grade.

Q. Following this train through has given to us an idea of the difference that grades make in the hauling capacity of such an engine? A. Yes, sir.

Q. If, for instance, you did not have a grade of over twenty feet to the mile at any point between the mines and New York, one of these engines with its crew would be able to haul through about how many cars, that is, modern cars? A. They would be able to haul from twenty to twenty-two cars, take an unbroken train straight through.

Q. If it was not over twenty feet anywhere? A. Yes, say twenty or twenty-five feet to the mile.

Q. These extra engines that work all the while hauling those cars up to the summits so that trains can come along and pick them up, is that slow or rapid work to do? A. Very slow work. They average about twelve miles an hour.

Q. Those engines have to have how much of a crew? A. They have a conductor and three brakemen.

Q. Just the same as any other engine? A. Yes, sir.

Q. How is that work on the engine itself as to strain and wear, that lifting work? A. A very heavy strain on the engines, on those heavy grades. With three engines, you know it is a very heavy strain on the draw bars.

Q. How is it on the cars? A. Very heavy.

Q. How is it on the repair and maintenance? A. It costs a great deal to repair the cars.

Q. Is that an important item in railroad operation? A. Very important.

Q. How important? A. It constitutes a large portion of your expenses, the repairs to the cars in the coal service, they are so heavy in handling them on the grades.

Q. You could not go into any figures or illustrate that any better yourself? A. No, sir, I could not.

Q. We would have to go to the shops for that, I suppose, for those figures? A. That is an entirely different department and handled differently.

Q. Has the Susquehanna any shops to keep such cars in repair? A. Yes, sir; they are situated in Stroudsburg, Pennsylvania, one hundred miles from New York.

Q. The entire length of your road from the mines to Edgewater is about how much? A. About one hundred and fifty-eight or one hundred and sixty miles.

Q. Those shops that you maintain at Stroudsburg are maintained solely for the purpose of repairing cars and engines? A. Cars and engines, yes, sir.

Q. How much of a force have you there? A. Probably one hundred men there.

Q. I assume that those shops in Stroudsburg do all your railroad repairing east and west for the entire line? A. Yes, sir.

Q. You do not build any cars or engines yourself? A. No.

Q. You buy those or rent those? A. We only make running repairs.

Q. Is there any other freight business from Stroudsburg west of the mines to speak of? A. Between Stroudsburg and the mines?

Q. Yes. A. Yes, there is some ice business on the hill, on Pocono Mountain.

Q. What other business is there on that part of the road except the ice business? A. Very little. Once in a while there is a car of props to be shipped to the mines, but very few.

Q. The timber or props commonly come from the west going east, do they not, to the mines? A. I do not know where they come from. We handle very few cars.

Q. The supplies of props are not growing very abundantly here in the east? A. Not on our territory, no, sir.

Q. Not passing over your road? A. No, sir.

Q. The ice business that you mention on Pocono is also a business where the cars come loaded to New York and go back empty? A. Go back empty.

Q. What business is there that furnishes a return load for the cars moving west from Stroudsburg to the mines that you know of? Any? A. Nothing at all.

Q. Aside from the ice business and the coal business, what business is there to keep this Wilkes-Barre and Eastern road in operation between Stroudsburg and Wilkes-Barre? A. Practically speaking, nothing. The towns that are located along that sixty-five miles of road are practically in the wilderness, and there are very few supplies to be furnished to the inhabitants in that country.

Q. When you say in the wilderness, do you mean that there is still timber left there, or that they have cut off the timber and it is underbrush and so on? A. Underbrush and small woodlands; a great many of them have been burned over. The forest fires have been very severe up in that country. We only run a mixed train, a passenger train with a combined car, which also serves as a way freight in that territory. We had a passenger train over the line, but it did not pay and we took it off.

Q. When did you have a passenger train from Stroudsburg to Wilkes-Barre? A. In 1903.

Q. You took it off about when? A. We took it off—no, I am mistaken in that date, we took it off about 1901.

Q. You put it on about when? A. It was on when we started the road in 1894.

Q. You kept this combination train? A. No, we kept the regular passenger train—I say regular passenger train; they hauled coal cars in that. It was a combined car behind some coal cars, and they hauled empty cars

west; but we took that train off and just kept the combined train on.

Q. So the only passenger train that can be called a passenger train that you had between 1893, when you opened your road, and 1901, was what we used to call a combination passenger car, drawn in the train with freight or coal cars? A. Yes, sir.

Q. What you call a way freight? A. We had a way freight in addition to that until 1901, and then we took off the freight and passenger and then the way freight handled everything.

Q. It was more properly what would be called an accommodation, was it not, your passenger train? A. Yes.

Q. That was run how frequently? A. That left Wilkes-Barre around seven o'clock in the morning and went to Stroudsburg, and then left there about seven o'clock at night and returned to Wilkes-Barre.

Q. How long did it take to make the run of sixty-five miles from Wilkes-Barre to Stroudsburg? A. About four hours, the sixty-five miles.

Q. Making about how many stops on the way? A. I would say about fifteen stops in each direction.

Q. How large is the largest place between Wilkes-Barre and Stroudsburg served by that accommodation? A. The largest place would be a station that used to be called Stofford; probably twenty-five inhabitants there and a small hotel; but all the guests at the hotel used the D., L. & W. Railroad, drove across about three miles.

Q. In the sixty-five miles from Wilkes-Barre to Stroudsburg of which you have told us, about these stops and so forth, what other railway ran through there to compete for the few passengers there were? A. Nothing less than seven or eight miles from the rails of the Wilkes-Barre and Eastern Division.

Q. And that was what road? A. The Delaware, Lackawanna and Western.

Q. That was the road nearest to you, was it? A. That was the nearest road, yes, sir.

Q. About how far were the Erie tracks? A. They were nowhere near there.

Q. Thirty or forty miles away, or more than that even? A. I should judge they were all of thirty or thirty-five—forty miles across country.

Q. Right across country, mountains and all? A. Yes. They were nowheres near the Wilkes-Barre and Eastern at all. The Erie Railroad was not anywhere in that vicinity at all.

Q. So that the Susquehanna and Erie were not competitors up in that country? A. No, sir. I was there ten years in the coal regions and until we built down into Hillside Junction in 1897, we did not even see the Erie.

Q. You did not even see it? A. We did not even see it at all, did not come anywhere near it.

Q. When you speak of Hillside Junction, was that the Erie, or the Erie and Wyoming Valley? A. That was the Erie and Wyoming Valley. When we went across there we just crossed their track, an abandoned branch called the Brownville Branch.

Q. The Erie and Wyoming Valley, Mr. McReynolds' witnesses say, was a company of which the Pennsylvania Coal Company owned fifty-one per cent. of the stock? A. I do not know. I cannot say as to that, but I understood it was a separate railroad company called the Erie and Wyoming Valley Railroad.

Q. The Erie, it appears from the evidence so far, was over at Lackawaxen, that is where you struck the Erie proper, and it had a branch to Hawley? How far were Lackawaxen and Hawley from the mines that you were serving? A. I could not tell you that exactly, but I know that it is nineteen miles from Scranton to Carbondale, and it must be twenty-five miles from Carbondale over to Hawley. I do not know the distance.

Q. Hawley is not in the coal region? A. Not as I understand it; out of the coal regions entirely.

Q. No mines there? A. No, sir.

Q. There are no mines in Lackawaxen, either? A. No, sir.

Q. So the Erie proper did not come into the coal regions at all? A. They had not anything to do with the coal regions as far as I could see. When I went there in connection with it, I never heard tell of them in the coal regions.

Q. They were way up north of Scranton, or northeast, the Erie? A. I think Hawley or Lackawaxen would be northeast, I should say.

Q. About how far would you say it was from the nearest point on the Erie, Hawley, to the place where you had a line that was nearest to the Erie? A. I should say, in a rough estimate, about fifty or sixty miles.

Q. There is a road running from Susquehanna down to Carbondale, sometimes called the Jefferson Branch, which it appears is a separate road of which the Erie has stock. Now assuming that that is an Erie road and is to be handled as an Erie road from Carbondale up to Susquehanna, then the distance from the Erie north of Moosic where your office was, to the nearest point on the Erie, would be about how many miles? A. About twenty-five miles.

Q. So that, as you understand the matter, the nearest that the Erie and Susquehanna came to being competitors, if we treat that branch down to Carbondale as Erie road, would be that they were about twenty-five miles from each other? A. Twenty-five miles apart.

Q. For either one of them to get any of the coal produced in the mines that were in that twenty-five miles of territory, they would have to make some arrangement with some railroad that reached that coal, or they would have to build their own line to that coal, one or the other? A. I would judge they would have to make arrangements with some railroad that reached that territory or build their own railroad.

Q. To build their own railroad in that territory, which is mountainous, would be very expensive? A. I doubt if they could acquire the right of way to do it.

Q. If they could not build, if it was not practicable to put in the money to build their own road to those mines,

then they could only get to those mines by making an agreement with a railroad that did reach them? A. They would have to make trackage arrangements with some other railroad that touched those points.

Q. And pay that railroad enough so that they would be willing that this Erie or Susquehanna road should go to that mine and get that coal? A. That is my understanding.

Q. Now we will come back. You became trainmaster of the Wilkes-Barre and Eastern in 1893? A. 1894.

Q. It has been operating then to the coal regions about how long? A. Since the latter part of 1893. I did not get up there until the property had been fully developed. There was very little business previous to that.

Q. There was very little business previous to the time you went there? A. Very little business previous to the time I went there.

Q. You mean by that coal business? A. No business.

Q. Because there was no ice business there at that time? A. No ice business then; no, sir.

Q. Do you know anything about this coal business, or how much there was of it, up to the time you went up there? A. I knew nothing about the coal business whatever, only as I had been a conductor on the Susquehanna and Western and run a coal train from Gravel Place, Pennsylvania, where the D., L. & W. delivered coal trains to us.

Q. You did know then, that the D., L. & W. was bringing coal trains over the mountains from Wilkes-Barre? A. From some point; I had never been in the coal regions.

Q. But you knew that the Delaware, Lackawanna and Western was bringing coal trains over the mountains to the Susquehanna and delivering them to the Susquehanna at what point? A. The D., L. & W. was bringing coal to the New York, Susquehanna and Western and delivering it to them at a point called Gravel Place.

Q. That point called Gravel Place was near what place? A. It was three miles beyond Stroudsburg, Pennsylvania.

Q. Three miles west of Stroudsburg? A. Northwest.

Q. Three miles northwest of Stroudsburg? A. Yes, sir.

Q. The Susquehanna was paying the Delaware, Lackawanna and Western to bring that coal over? A. Yes, sir; we were paying them for bringing it over, and after they had hauled the coal to West End, it was necessary for them to deliver it back again to the D., L. & W. to haul it into their coal docks at Hoboken, so that they had to pay a charge at both ends of the line. That was the reason that they built the Edgewater terminal.

Q. The Susquehanna had no terminal at that time? A. They had no terminal; they had just gone into the coal business.

Q. They did not reach the mines at one end, did not even reach over the mountains at one end; that is right, is it not? A. They did not reach the mines at one end and they did not reach the river front at the other. It was merely a thoroughfare road, connecting link.

Q. The only coal business they could get then at that time was such as the Delaware, Lackawanna and Western would give to them, at whatever rate the Delaware, Lackawanna and Western saw fit to give it to them? A. That I cannot say. All I know is the coal that came there was delivered by the D., L. & W. Railroad; from what points, I knew nothing of. Then this Wilkes-Barre and Eastern Division was built from Stroudsburg to Wilkes-Barre, so that the Susquehanna could reach the mines themselves, and make contracts with the miners to carry this coal.

Q. Then in 1894 you went over to Wilkes-Barre, did you? A. Yes, sir.

Q. To live? A. I went to live at Wilkes-Barre and had my office at Yatesville, six miles north of Wilkes-Barre, where we connected with the Delaware and Hudson Railroad, and they delivered some of this coal to us at Yatesville that they gathered up from certain mines.

Q. You found the Susquehanna getting coal from what mines when you went over there in 1894? A. We reached with our own power and did the work at the following mines: the Algonquin, Laurel Run, the Fernwood. Those were the only three mines that we reached with our power.

Q. With your own locomotives? A. Yes, sir.

Q. The Algonquin was situated where? A. On the Central Railroad of New Jersey tracks, between the Central tracks and the Delaware and Hudson tracks.

Q. Just point it out to me on the map? A. It is down by Miners' Mills.

Q. Near Pittston? A. No; near Wilkes-Barre, between Hudson and Parsons.

Q. It has been abandoned since? A. It has not been abandoned, but the Delaware and Hudson take the output.

Q. How long have they been taking the output? A. Since about 1902.

Q. Down to that time did the Susquehanna have it? A. The Suequehanna had it up to that time, about that time, as nearly as I can remember it.

Q. From 1894 down to 1902? A. I can tell by looking at my papers. (Referring to papers.) The last coal from Algonquin and Laurel Run was 1902.

Q. The last coal from Algonquin and Laurel Run was 1902; is that right? A. Yes, sir.

Q. Were they still producing coal? A. They were still producing coal, and the Delaware and Hudson went in there and took it after that.

Q. How the Delaware and Hudson got the right to go in there and take that coal and take it away from you, you do not know, I suppose, except by hearsay? A. No, sir; I do not know anything about it.

Q. You have heard they bought it, but you do not know whether they did or not? A. I heard they bought it.

Q. Down to that time from 1894, when you went there, you had had the output of those mines? A. Of Algonquin and Laurel Run, and had gone there with our own engines to take out the coal.

Q. Did your tracks reach both those mines? A. We had to run over the canal branch of the Central Railroad of New Jersey and across the Delaware and Hudson at grade at Minerstown and then use the main tracks of the Central Railroad of New Jersey.

Q. So that you had to go over the Central Railroad of New Jersey's tracks to reach that—— A. To reach those two mines.

Q. The Laurel Run and the Algonquin? A. Yes, sir.

Q. And you had to pay a trackage to the Jersey Central, did you? A. We paid so much a ton.

Q. Trackage? A. Trackage.

Q. Do you know how much a ton you had to pay them for passing over their tracks? A. I do not; I think about five cents a ton.

Q. The third mine that you mentioned there is reached by your power? A. That was on our main line.

Q. What was that mine? A. That was owned by a man by the name of Bennett.

Q. That is the mine you call what? A. Fernwood.

Q. How long did you continue to haul the coal away from Fernwood? A. We continued to haul the coal from Fernwood up to 1901.

Q. Then what happened to Fernwood? A. I cannot just remember the party that bought that. This man Bennett sold the property; I cannot recall the name. I understood that Bennett sold this property to the Butler Coal Company.

Q. And the Butler Coal Company was connected with what company? A. They were connected by passage with the Fernwood Company and took the coal out to the Butler breaker.

Q. And the Butler breaker and Butler Company furnished their coal to what railway company? A. They furnished it to this company until 1901.

Q. Until this sale was made? A. Yes, sir.

Q. Then that coal, instead of going to the Susquehanna, or going over its rails, went over the rails of what company? A. Of the Erie and Wyoming Valley.

Q. In 1901? A. In 1901.

Q. You have taken up the three collieries that the Susquehanna reached with its own motive power, one of them over its own rails and two of them over the rails of the Central of New Jersey. Now what other coal did the

Susquehanna get? A. They got coal from Sibley; Jermyn No. 1 and Jermyn No. 2. That coal was delivered to them by the Lehigh Valley at Jenkins Junction, about a mile south of Yatesville.

Q. For how many years did the Susquehanna get the coal from those mines? A. From Sibley, up to 1902.

Q. Then what happened to that? A. It was taken by the D., L. & W. and the Lehigh Valley.

Q. The coal was taken from that by those roads then? A. Yes, sir.

Q. Do you know how it happened that those roads were able to get that coal then? A. It was directly on their tracks. We had to run over their tracks to reach it, and we only received a small portion of the coal.

Q. After that you did not receive any of it? A. We did not receive any of it.

Q. The next? A. Jermyn 1 and Jermyn 2 were delivered to us by the Lehigh Valley at Jenkins Junction from 1894 to 1897, and then we reached those mines ourselves with our own engines, after we had built the connection in from S. C. R. R. Junction to Jermyn Junction.

Q. Is that what they sometimes call the Susquehanna Connecting? A. Susquehanna Connecting Railway Company.

Q. That is that costly viaduct there, is it? A. Yes, sir.

Q. About how long is that? A. The viaduct is seventy-eight feet high and I think one hundred and twelve feet long.

Q. What is it? Steel? A. It is a steel viaduct. Then they also had to build another steel viaduct to reach the Jermyn mines. That was six hundred feet long and fifty feet high, passing over the Delaware and Hudson Railroad tracks, and Delaware, Lackawanna and Western tracks.

Q. Do you know anything about the expense of that Susquehanna Connecting? A. I do not know what that was.

Q. That was built just to reach those two Jermyn

mines? A. No, it was built that we could reach Greenwood 1 and Greenwood 2 mines.

Q. It was built then to reach how many mines? A. It was built so we could reach Sibley, Jermyn 1, Jermyn 2, Greenwood 1 and Greenwood 2. Greenwood 1 and 2 were, between the years 1894 and 1897, delivered to us at Yatesville by the Delaware and Hudson Railroad.

Q. About how many miles did the Delaware and Hudson draw the coal from Greenwood 1 and 2 to reach you? A. About ten miles, I should say.

Q. Do you know how much you had to pay the Delaware and Hudson for hauling that Greenwood No. 1 and Greenwood No. 2 coal to you at Yatesville? A. I cannot say what the exact amount was for hauling the Greenwood 1 and 2 coal, but I can say that the W. E. & B. Division of the New York, Susquehanna and Western paid during the year ending June 30th, 1896, $207,198.44 to connecting railroads for transportation of coal from the breaker situated on tracks owned by those companies in the Lackawanna region.

Q. That is what they paid other railroads? A. That is what the New York, Susquehanna and Western paid other railroads to bring this coal to them.

Q. You do not know what you had to pay the Lehigh for bringing the coal from the Jermyn collieries? A. No, that is what we paid all the railroads.

Q. When you come to apportion it up, you could not say what was paid each one? A. No, sir.

Q. By building the Susquehanna Connecting Railway, that was finished in 1897, as I understand you, you were able to cut out that two hundred odd thousand dollars paid to other railroads and were able to reach the Greenwood 1 and 2 and Jermyn 1 and 2? A. And the Sibley.

Q. And the Sibley? A. Yes, sir.

Q. And then you did reach them? A. And then we did reach them and served them with our own engines and crews.

Q. How long did you continue to serve those mines with the Susquehanna? A. We are still serving Jermyn 1 and 2.

Q. What about the Greenwood 1 and 2? A. Our shipments from the Greenwoods were up until 1901.

Q. Then what happened in 1901? A. The Delaware and Hudson came in there and took that tonnage.

Q. From Greenwood 1 and 2? A. From Greenwood 1 and 2.

Q. The Delaware and Hudson was the company that used to bring that to you? A. At Yatesville, yes, sir, up to the time we built into that territory.

Q. Until you built the Susquehanna Connecting to reach those? A. Yes, sir.

Q. That Susquehanna Connecting you said was about how many miles long? A. About seven miles from the Junction to Minooka, the main line of the Delaware and Hudson, and about five miles to Jermyn Junction, the assembling yard.

Q. Was the Susquehanna Connecting then about seven miles long altogether, or only about five miles long altogether, or shorter? A. About five miles and a half, and the balance of the track was owned by the Greenwood people.

Q. Themselves? A. Yes, themselves, down toward Minooka.

Q. So that of this trackage over which your engines served the Greenwood mines, you owned about five and a half miles and the Greenwood mines themselves owned the balance? A. Yes, sir.

Q. Making about seven miles? A. Yes, that is as near as I can tell.

Q. After that expensive piece of track had been put in there by this Susquehanna Connecting—it was the Wilkes-Barre that built it in, was it not? A. Yes, sir.

Q. After that had been put in there in 1897, you continued to enjoy all the mines for which it was put in from 1897 to 1901? A. 1901.

Q. Then two of them, that is the two Greenwood mines, went over to the Delaware and Hudson? A. Yes, and that piece of track lies idle between Jermyn Junction yard and Greenwood No. 2, about a mile of track.

Q. With a beautiful coat of rust on it, I suppose? A. Yes, sir.

Q. It is worthless? A. It is worthless.

Q. That Susquehanna Connecting track, does it reach or handle any other business in the world except that of those mines that it was built to reach? A. We have lately located a washery down near Greenwood No. 2, and they ship four or five cars a day, or every other day; practically nothing at all.

Q. A culm bank being washed out? A. Yes, sir; very few cars.

Q. But that Susquehanna Connecting does not do anything but coal business? A. Nothing but coal business.

Q. When the coal business is done, that road will be worthless? A. Worthless.

Q. So that the value of that road must be gotten out of the coal business before the coal business stops? A. Yes, sir.

Q. Do you know how long those mines will last that that road was built to? A. I have heard the life of Jermyn 1 and 2 would probably be 15 or 20 years more. That is nothing but hearsay.

Q. You know about how many years they have been running, though? A. I believe they have been in operation since about 1882.

Q. That would give them forty or fifty years of life all told? That would be about right? A. Yes, about forty-five years of life, all told.

Q. Is that about the right length of life for most of those mines in there, or do you not know? A. They vary according to the veins.

Q. Do you know why the tonnage of the Greenwoods 1 and 2 were turned over to the Delaware and Hudson in 1901? A. I do not.

Q. Nothing but hearsay? I never even heard. I heard the Delaware and Hudson were going to haul that coal.

(At 4.55 P. M. adjourned until Thursday, April 8th, 1909, at 10.30 A. M., at the same place.)

NEW YORK, sday, April 8th, 1909, 10.30 o'clock A. M.

Present:—The Examiner; J. C. McReynolds, Esq., Assistant United States Attorney, and G. Carroll Todd, Esq., for the United States; Judge Adelbert Moot, Major Everett Warren and Frank R. Schapperkotter, Esq., for certain of the defendants.

Examination of M. E. Johns resumed.

By JUDGE MOOT:

Q. This gathering of the coal at the mines, how is that done? A. That is accomplished by sending train crews to the mines with the empties and doing the switching that belongs to the loading of the coal, placing the cars and picking up the loaded cars and assembling them to an assemblage point for the through trains to handle.

Q. Taking that description as your basis, show us just how you did do on the Susquehanna during the years you were there? Give us a fair representative typical day's work? A. We would take one mine crew, for instance, they would leave Jermyn Junction yard at 5.30 in the morning, take a supply of empties to Greenwood 1 and Greenwood 2 mines, and also a supply to be delivered to the Delaware and Hudson at Minooka for the Delaware and Hudson to distribute to mines along their line.

Q. That supply of cars would be about how many as you did the business there then? A. Take, for instance, on the fifth day of July, 1899, we delivered fifty-seven empties to the Delaware and Hudson at Minooka and received fifty-eight loaded from them. That was directly to the Erie. Take the Susquehanna. We gave the Greenwoods—it is not stipulated here how many we gave either No. 1 or No. 2, but they received thirty-eight empties, and we took thirty-three loads from them, gathering them up through the day. That would be ninety-one loaded cars that we moved from Minooka to Jermyn Junction from that point.

Q. A distance of how many miles? A. About three miles—two or three miles.

Q. That would be how many empty cars altogether that you had there? A. Ninety cars—ninety empties.

Q. That were taken in, and how many loaded brought out? A. Ninety-one loaded brought out.

Q. That was done by how many engines and crews? A. One train crew, with two engines.

Q. You say one train crew brought two engines? A. When they went down with the empty cars, the second engine would trail behind, and then would shove the empties to the Delaware and Hudson and leave them there at either end of the train.

Q. You said one crew? A. One conductor and three brakemen with the two engines. They had one train.

Q. How were the two engines operated by a crew of only four men? A. On the return movement those two engines, one would take the head end of the train and one the hind end of the train and shove it up.

Q. How did the men operate the trains? How were the four men constituting the train crew divided up between the two engines? A. Put two men at each engine to look after it—two at the head and two at the hind end.

Q. So that to save expense you only had one crew for two engines? A. Yes, sir.

Q. You had to send two engines down to do this? A. Yes, sir.

Q. Why? A. It is a heavy grade. You would have to make too many trips if you didn't have two engines.

Q. What sort of engines were these; little pony fellows or what? A. The weight of these engines is 138,000 pounds, the Rodgers locomotive.

Q. Standard Rogers locomotive? A. Yes, sir. At that time they were considered quite a large engine.

Q. That was ten years ago? A. Yes, sir. We got those engines in 1894, I think. At that time they were considered large engines. When that crew came back from Minooka they would go over to the Jermyn mines. On this day there were thirty-eight empties assigned to the Jermyn mines, and it took two engines to pull those thirty-

eight empties to the mines up this grade. That same day they got thirty-eight loaded cars from there.

Q. How was it about pulling them? A. One engine would trail down behind with them, because it was a little down hill.

Q. Down hill from Jermyn to where? A. From Jermyn to Jermyn Junction.

Q. How many hours would that crew and those two engines work to do all this work that you have given us? A. They had to go to these mines at different times. At 11 o'clock they had to come back to Sibley, and run over the Lehigh Valley and D. L. & W. tracks. They gave them seven empties and took out four loaded cars. It took them probably two hours to make that trip for that small amount of coal.

Q. The two engines and the crew? A. Yes, sir. When they came back they filled out with coal at the Jermyn mines. They had to wait on those mines back and forth all day long, set the cars around. Suppose a car after it had been loaded would be condemned.

Q. What do you mean by condemned? A. It did not come up to the standard of the percentage of carbon.

Q. Who would condemn it because it did not come up to the standard? A. The coal inspector. There is an inspector at the mines.

Q. That inspector is the mines' own inspector? A. I do not know.

Q. Or, is he the inspector for the purchaser? A. I think he is the inspector for the purchaser, because that coal is not ready to go out unless it passes the inspection. Then those cars have to be switched out from among the loaded cars and set back again and go through the breakers again and be picked over on the pick over track and then there are also cars that are underloaded, they have not got the proper amount of coal in them, or have got too much coal, and they have to be set around and the car loaded up to its standard weight, or if it is overloaded, to take the coal out. It means a great deal of switching at the mines.

Q. Do any of these mines have their own engines to do this switching? A. No, sir. We did all the work.

Q. Did any of the mines you know about in that country have engines of their own to do their own switching? A. I do not recollect a mine that has an engine.

Q. These tracks on which this switching was done, you said, I think, that the Greenwoods had some tracks of their own. Generally speaking, how was it, did the mines have tracks of their own on which to do this switching, or did the railroad furnish a track on which to do the switching? A. When we took on the Greenwood mines, the lay of the track did not suit us, and we spent some money there for our own convenience. We never got the tracks back, they are there yet. They are on somebody's else property. When they took the mines away from us, we hadn't any release, and the rails are still there.

Q. They have got your rails? A. Yes, sir.

Q. So far as you know, do the mines furnish their own tracks on which to do this switching, or, does the railroad furnish the track on which to do the switching? A. Generally the mines furnish their own switch tracks.

Q. Was that true of these mines served by the Susquehanna, they, generally speaking, do furnish their own tracks? A. They do.

Q. The railroad tracks that the railroad furnished came up to about how near to the mines? A. There was a different condition at most every mine. At Algonquin and Laurel Run they were two miles away from the Susquehanna main line. They had to travel over the Central Railroad tracks to reach them. At another point on the Brown branch on the Jersey Central we had to travel three miles over their branch to reach the Ridgewood mine.

Q. Where did the tracks of the Central Railroad of New Jersey end, and about where did you reach the point where the tracks of the mines on which the switching was done began? A. Those were right generally adjacent to the main track.

Q. Generally speaking, those tracks of the mines on which they do the switching and pull these rejected cars

out and set them back, and all that, about how much was there of those tracks furnished by the mine itself? A. They were all furnished by the mine itself.

Q. About how many miles or yards or feet of track? A. We generally figure on the mine track holding the number of empties they use a day to load, whatever it would be. Some of them did not furnish enough track room for their empties, and you would have to send your engine there a second time and give them a second shove on their empties. Say they used forty cars, some of them would only have an empty car track that would hold twenty cars, and you would place twenty, you would have to bring your engine around to place twenty more after they dropped them down, so it was a continual waiting on the mines.

Q. Forty cars, if they were forty feet long, couplings and all, you would have, as I figure it, about sixteen hundred feet? A. Sixteen hundred feet, yes, sir. Take Algonquin. Algonquin was furnished forty empties on July 5th. The tracks were in this shape (illustrating). Some of those forty empties would hang over on the decline.

Q. Hang over what point? A. They would hang over on the decline. You could shove probably thirty over there so they could drop them and ten would hang over, and you would have to send an engine there so they could drop them The tracks were long enough there, but there was a hump in the middle of them.

Q. Was the Algonquin's switch track long enough to hold forty empty cars? A. It was.

Q. Was that about all there was of it? A. That was about all there was of it.

Q. That was about all the track the mine furnished? A. Light track capacity.

Q. That particular track you say had a hump in it; that is, you mean the middle of the track was higher than either end? A. That is it.

Q. When you had set back forty cars on that track some of them went over this hump, or the higher point, or the summit, and hung over, that is, they were on a decline away from the mines or the breaker of the mine? A. That is correct.

Q. The men could not push these heavy cars up that decline to the summit so that they would run down towards the breaker's mouth, is that right? A. There would be a portion of them that they could not.

Q. Those that were over the summit they could not push up? A. No, sir.

Q. As to those that were not over the summit, having declined toward the breaker's mouth, the men could unfasten the brake and let those cars run down and handle them? A. They could drop about thirty empties without having another shove.

Q. By dropping thirty empties, you mean they could release the brakes, let the cars run down, then set the brake and stop them at the breaker's mouth, so the car would be run under the chute to be loaded; is that right? A. Yes, sir. Drop them down on the loaded track.

Q. You mean they could release the brake again and let the car run down to the loaded track by gravity? A. Yes, sir.

Q. And then set the brake again and stop it? A. Yes, sir.

Q. Generally speaking, that is the method by which these cars are handled at all mines? A. Yes, sir.

Q. At the breaker's mouth? A. Yes, sir.

Q. When that car has been loaded at the breaker in that way, if when it gets down to the loaded track the inspector rejects it ——. A. They either have to drag it around to the empty track again, or else if they are fortunate enough to have what they term a condemned track, place it in there.

Q. That car must be dumped? A. No; it has to be picked over. Boys get on the car and pick the hard slate and refuse out.

Q. So that it will pass muster? A. Yes, sir. If there is a large quantity of it it has to be run through the breaker again and filled to its capacity.

Q. You are familiar with switching generally at industries at places like Paterson and elsewhere, and you are familiar with this switching at the mines and breakers.

What is the difference in value between switching at the ordinary industry at a place like Paterson and switching at a coal mine, as to the amount of it and all that? A. Take a private industry, you usually give them one drill a day.

Q. By one drill a day you mean you usually send in your engine once a day with cars enough for that industry? A. Yes, sir; at a specified time.

Q. You then take out what loaded cars the industry has ready for you to take out? A. And give them their empties; yes, sir.

Q. You send in your engine once a day with the empties they have ordered to an industry and pull out the loaded cars they have ready to pull out? A. That is right. We generally try in all yards to have a specified time to wait on each individual. In other words, I can give you an illustration; when I was yardmaster at Paterson, we had an agent, and somebody would call up on the telephone and say, "Is there a car in there to-day for me?" and he would say, "Yes," and he would say, "Can you have that brought down right away?" and the agent would say, "Yes," and he would wire me to please bring that car down immediately. The result would be that it could not be delivered, because the engine would probably be in to some other private industrial track waiting on them at that prescribed time and the prescribed time for taking cars for public delivery would be eight o'clock in the morning and two o'clock, and any other delivery was to be provided the engine had the available time to do it, and then the consignee would be accommodated.

Q. In other words, there has to be system about this business of switching in a place like Paterson? A. Yes, sir.

Q. And hours at which deliveries were made at public tracks and hours at which deliveries were made at private tracks? A. Yes, sir.

Q. So that the day would be cut up for the engine and crew so they could use their time economically from be-

ginning to end? A. Yes, sir; without having to have surplus power or crews.

Q. Generally speaking, that is an illustration that applies to all industries everywhere where such switching is done? A. Yes, sir. Wherever an industry requires the alsolute use of an engine, they pay for it.

Q. So much an hour or how? A. So much a day or whatever the basis is.

Q. Do you know what the allowances are generally for engines that an industry requires for its service? A. They are always made as cheap as possible, generally at the cost of the crew and the fuel.

Q. And repairs, I suppose? You do not know about what that is, do you? A. No; I could not just exactly tell you.

Q. Could you give us an idea about what it runs? A. A charge of fifty dollars a day for an engine and crew would be a fair charge.

Q. That would cover how many hours? A. Twelve hours.

Q. These mines with these engines waiting around, do they pay anything for that switching? A. No, sir.

Q. Is there ever any charge made to them for switching? A. No, sir.

Q. The railroad does all that at its own expense? A. Does that switching at its own expense. They call on the telephone at all times of the day if they need any extra switching, and expect to have the service immediately.

Q. Without regard to any appointed hour or anything of that kind? A. Yes, sir.

Q. Do you know how many engines and crew it takes to do the switching at these mines served by the Susquehanna altogether? A. That would vary according to the output. At times we would have on an average of four engines doing the work at the different mines.

Q. How many crews? A. Two crews, one crew with each two engines.

Q. And those crews would be serving how many hours?

A. Twelve hours. A great many times they make two or three hours overtime.

Q. Are they paid for overtime? A. Yes, sir.

Q. At the same rate of wage, or higher? A. At the same rate, so much per hour.

Q. How is that switching at the mines on the rolling stock, on the engines and cars, with reference to repairs and maintenance, as to being easy or hard? A. Most all the mines at the mine tracks are on heavy grades, so that they can drop their cars by gravity and there is a great deal of breakage around the mines by the car droppers dropping the cars, and there is very seldom any redress for damages; you cannot place the damage, who does it, or where it occurs. You find drawheads smashed and the ends of cars out, and nobody claims to have done it or to be responsible for it.

Q. Nobody there to see it for the railroad company? A. Nobody for the railroad company there.

Q. Is that damage to cars and drawheads and all that more than the usual amount of damage done to cars in switching movement? A. Yes, sir. There is a large amount of that.

Q. What per cent. would you say there was of that more than in the ordinary industrial movement switching of cars? A. Twenty-five per cent. greater, I should say, in the cars in the coal service. They are so heavily loaded.

Q. These men that drop these loaded cars down, they are not railroad men? A. No; they are in service at the breakers, generally Italians or Hungarians, or some foreigners.

Q. When they drop them down in that way, do they ever cause runaways? A. Yes, sir; we have had runaways.

Q. What is a runaway? A. The car gets beyond their control and goes down and runs off the derailing switch, or runs into another train of cars and damages them.

Q. When that occurs with one of these heavy cars loaded with coal what happens? A. The crew have to retrack it.

Q. When that comes tearing down a steep grade loaded with coal out of the control of the men, I suppose they jump off of it? A. We had one case at my office at Yatesville; the operator at Jenkins Junction called up on the 'phone at Yatesville and said "runaway car," and I was standing on the porch of the office and saw it coming, and we got our engine out of the way, and in order to prevent the car from running down the main line toward Wilkes-Barre and doing damage there, we set the switch and ran it in on a side track that was full of coal cars and mashed up several cars and mixed the coal in the different cars, so that there were all sizes mixed together.

Q. How much damage did they do to that runaway car? A. The car was smashed to an egg-shell, and it was no further use.

Q. It was put out of business, so to speak? A. It was put out of business and wrecked several of the other cars too.

Q. Did it put it out of commission so it could not be repaired? A. Yes, sir. We dumped it over and burned it up.

Q. How many years ago did that occur? A. That was along about 1895 or 1896.

Q. That would be a car that in those days would have cost about how much? A. That was one of the small wooden cars. Probably it cost eight or nine hundred dollars.

Q. You say it ruined two or three other cars? A. Yes, sir.

Q. Could they be saved? A. Yes, sir; they were repaired.

Q. Have you any idea what the expense of the company was to get them repaired? A. No; I couldn't tell you.

Q. Were they badly wrecked? A. Yes, sir; they were damaged considerably.

Q. You speak of the coal being mixed up. How much coal was mixed up in that way? A. There were two or

three cars mixed up so that we took the coal and used it in the dump for engine supply instead of sending it out to market.

Q. In that case all that damage, who did that fall on? A. That I can't say. I did not handle that part of the business at that time. I suppose they billed the mine for it. It was certainly a case of negligence on the part of the mine.

Q. In that case it ought to have been paid by the mine? A. Yes, sir.

Q. Whether it was or not you do not know? A. I do not know.

Q. You say usually you are not able to put the responsibility on the mine? A. A good many cases of damage to cars at mines you are not able to place the responsibility, and the railroad company has to make the repairs.

Q. What proportion of the cases would you say you were able to put it home to the mine as their negligence? A. All of them. Figuratively speaking, all of them.

Q. I am not talking about whether you could say from an operating point of view that the mine was at fault, but I am asking in what proportion of cases were you able to prove it on them so that they paid the damage? A. I do not remember ever having them pay the damage. It was always a question that went back and forth, and it was generally sidetracked.

Q. Take this particular case, do you know whether the mine did pay for this damage done? A. I do not know.

Q. Do you know whether there was any suit about it? A. No; I do not.

Q. You only know that they should have paid that? A. They should have paid it.

Q. Did you ever know yourself of a case where they did pay it? A. Not that I recollect.

Q. Either voluntarily or by lawsuit? A. Not that I recollect.

Q. The amount of coal that you put on the dump for your engines to use, because it was mixed up so badly,

was about how many tons? A. Probably twenty or twenty-two tons to the car, those old small cars.

Q. How many cars? A. Three of them, I think.

Q. So that there were somewhere in the neighborhood of seventy or seventy-five tons of coal? A. Yes, sir.

Q. Was it prepared sizes? A. I think it was. I think it was stove and nut coal.

Q. If the mine did not pay that loss, then the railway had to pay the company that owned that coal for that coal? A The railroad company had to pay for that coal for their engines—whether it went to market or whether they used it.

Q. At the market price? A. I suppose so.

Q. Whether it got it back from the mine or not, you do not know? A. I cannot say.

Q. Is this just an isolated case you are giving us out of ten years' experience, in which there was only one, or are you giving us from memory simply a typical case of what occurred from time to time? A. Those cases are frequent of cars running away—what they call a runaway—the car runs away. The man cannot control it. He does not control it. He tries to drop too many cars at one time, more than he can handle. I know of a case where thirty-five or thirty-six cars ran away from the Consolidated breaker and we had to pull those cars back with mules, one at a time.

Q. Why? A. Because the track was such that we could not get in there with an engine to shove them up.

Q. I suppose it was a slow job pulling them back with mules? A. It was.

Q. Was any damage done, or was that a more fortunate affair? A. No damage done. We had a regular runaway switch that run off like that. (Illustrating.)

Q. You had a switch there for the very purpose of intercepting those runaways? A. Yes, sir.

Q. Then these runaways are so frequent that you have to have switches at various points to intercept them? A. Yes, sir; derailing switches, or runaway switches.

Q. All through that country; is that so? A. Yes, sir.

Q. This name "runaway" grows out of the fact that these runaways are so frequent in the handling of cars? A. That is correct.

Q. You say you were called up at Yatesville by telephone, or how? A. On this particular runaway car?

Q. Yes. A. The operator at Jenkins Junction called Yatesville office, and he answered immediately and he said, "runaway car," and we prepared for it.

Q. Was that by telegraph or telephone? A. That was by telegraph. Or the car would have come down the main track and smashed into the yard engine that was standing on the main track.

Q. Does the railroad company hire and pay these telegraph operators at these various stations in that country, so that they can send despatches like that? A. They are on duty all the time.

Q. Was that part of the expense of handling and gathering this coal, to maintain that telegraph force? A. Yes, sir.

Q. What other expense is there in connection with this gathering of coal besides the engines, the crews, the tracks and the telegraph force? A. That perhaps would cover the expense.

Q. The main ones? A. The main ones. Your maintenance of track, your train crews, the cost of assembling the coal from the mines to the assembling point.

Q. You say the maintenance of track. You have to have men there to maintain the track in condition? A. Section men, oh, yes.

Q. A regular road force? A. A regular section gang.

Q. How is it as to maintaining these tracks; are they more or less expensive than the ordinary mileage of the same amount to maintain? A. Do you mean are the breaker tracks more expensive?

Q. Take the tracks as a whole first and then take the breaker tracks by themselves. A. That would all depend on how much traffic there was over the tracks. The more traffic, the more attention they receive. No more than

the ordinary expense of maintaining the ordinary track for traffic.

Q. With the same amount of traffic? A. Yes, sir.

Q. Does it make it any more expensive to maintain these tracks if they are on the grade than it does if they are on a level, or is not that a thing of consequence? A. I do not think there is any consequential expense in that.

Q. You spoke of switch tracks around the breaker. Are they more expensive to keep in repair than other tracks? A. The breaker people should maintain their own tracks, unless they ask the railroad to do it and bill against them.

Q. That is what they usually do; they maintain their own switch tracks at the breaker? A. Generally; yes, sir.

Q. So that your maintenance is confined to maintaining the tracks that go up to the switches? A. The main tracks.

Q. Did you ever make any estimate in any way as to how much a ton it costs the railroad to gather this coal to the assembling point and send it through to tide or somewhere else? A. I never made any estimate, but I always considered that it was a very expensive operation to assemble the coal and wait on the mines.

Q. When you say you never made any estimate, you mean you never figured it out in so many dollars and cents? A. No, sir.

Q. Can you give us any estimate of about what it cost a ton to gather that coal together, on the basis of your experience there for ten years in handling this business? A. That would be very difficult. I might say what I would roughly guess at it. I suppose it would cost at least fifty cents a ton to assemble that coal and take it and do all the mine work and haul it to the assembling point for the through trains to gather it up. I might be wrong, but it is a very expensive item.

Q. To-day your crew cost you how much? What are the wages of your crew for those twelve hours? A. About twenty-five dollars for a crew just in one engine.

Q. The wages? A. Yes, sir. Say about thirty dollars for two engines.

Q. If it worked over time an hour or two, then that adds how much? A. That adds so much to each hour at the rate paid. But then you have got to have more than a mine crew to keep hauling this coal out of this hole to get it to the assembly yard.

Q. What other crews have you got to have to get it to the assembling point? A. You have got to have what you call your hill crews.

Q. To get it to the assembling point from the time it starts from the mine until you get to the assembling point, how many more crews and engines do you have to have working at it day by day? A. About six more engines.

Q. How many crews? A. One crew to each three engines on that hill. One engine goes ahead and two behind to push on this hill.

Q. They divide the crew up? A. The crew is right there with the whole business. The grade is so heavy you do not have many cars. You can only haul five or six cars up this grade with your engine. When you have your whole train together it is only fifteen or sixteen or seventeen cars.

Q. Are the four men constituting the crew, the engineer, fireman, two brakemen, divided up so that one brakeman would take one engine and another brakeman another engine, and fireman and the engineer would take the other engine and go on ahead? A. No; they are all coupled together.

Q. The whole three engines are coupled together? A. One ahead and two behind.

Q. The four men running two engines? A. That is right.

Q. How do they fire them? A. They have a fireman and engineer for each engine. On three engines there would be three engineers and three firemen, and a conductor, that is seven, and three brakemen.

Q. That makes ten altogether? A. Ten men for that crew.

Q. Then the crew for three engines would be ten men? A. Yes, sir.

Q. And the crew for two engines to do this work would be how many men? A. Eight men.

Q. When you speak of the wages of the men being twenty-five dollars a day ——. A. That would be one engine and crew. I have not just the figures here now.

Q. When you said twenty-five dollars a day for a crew, you meant a crew for one engine? A. Yes, sir.

Q. If you had a crew for two engines would that double it? Would that make fifty dollars? A. The wages for an engineer and fireman would be about between six and seven dollars.

Q. So that for the two engines, instead of being twenty-five dollars, it would be about thirty-two dollars? A. Yes, sir. It would add that other engineer's wages.

Q. When you had the three engines with the ten men's wages, the cost would go up to about what point? A. About six or seven dollars more.

Q. That is on the basis of wages paid by the Susquehanna to its men at the present time? A. Yes, sir. Then there is the consumption of coal on these engines.

Q. Does the Susquehanna pay these men as much wages as the Erie does, for isntance? A. They do not.

Q. Suppose that was on the Erie instead of the Susquehanna, how much more would it add to the wages of the men? A. The wages of the men are higher on the Erie Railroad than they are on the Susquehanna.

Q. About how much more would you have to pay for wages on the Erie for the same crew. A. I think they pay about a dollar more a day for engineers on the Erie Railroad and work ten hours, where we work twelve hours.

Q. How about a brakeman? A. They receive about a half-dollar more.

Q. Then for ten men to handle three engines in this way on the Erie road would have to add about six and a half or seven dollars? A. Probably eight or ten more dollars.

Q. On account of the shorter hours? A. On account of shorter hours, and the increase in wages.

Q. Were those wages that you are figuring on now wages of the Susquehanna back in 1897 and 1898, or were they lower at that time? A. They were very low when we started these coal trains.

Q. In the beginning, in 1892 and 1894? A. Yes, sir; in the beginning.

Q. How low were they? A. An engineer only received three dollars and twenty-five cents a day, and a conductor two dollars and fifty cents a day, and a fireman, I think, at that [illegible] about a dollar and seventy-five cents a day, and a brakeman [illegible]out the same.

Q. For twelve hours work? A. Yes, sir.

Q. Over time at the same rates? A. Yes, sir.

Q. How long did they go along at that low stage? A. I cannot just tell you when there was an increase, but that was after the Erie took charge of the road, they gave them all a slight increase.

Q. Of about what per cent? Can you tell? A. I think they increased the engineers about fifty cents a day.

Q. And the firemen and brakemen? A. All of them proportionately.

Q. Did the Erie do that voluntarily, or did the management at least of the Erie do it voluntarily, or was that in response to the demand of the men? A. That was the demand of the men.

Q. Has there ever been any increase made since? A. Yes, sir; they made the second increase.

Q. About when was that made? A. About, I should think, four years ago.

Q. About how much was that? A. Now a freight engineer receives three dollars and seventy-five cents a day.

Q. And the other men? A. The other men in proportion, and they still want an increase.

Q. Are the Susquehanna men paid as well as the men of the other railroad companies up in the mining regions? A. No, sir; they are not.

Q. Do you have any trouble on that account? A. Yes, sir. It causes a good deal of trouble.

Q. You lose your best men, I suppose? A. Men will come to you as greenhorns and you will educate them and break them into the railroad service, and in a great many cases they will leave you as soon as they are able to pass an examination on the other roads that pay more money and we lose them. What we try to do is to hire men that live directly along the line of the road, and have their homes there, so as to hold them.

Q. Come back to this expense of moving, from another point of view. You said the mere engine crew was not the only expense; your engines have to have fuel? A. Fuel.

Q. About how many tons a day does an engine burn running twelve hours a day? A. From eight to ten tons of coal.

Q. What kind of coal do you use up there in the mining regions? A. We use pea coal on some engines and grate coal on others, according to the character of the engine.

Q. But you use anthracite coal? A. Anthracite coal.

Q. You pay for that the mine price, I suppose, do you not? A. I suppose so. I do not know anything about the price or the cost of it.

Q. So you could not tell us just how much would have to be figured for that coal burned on the engines? A. No, sir. I couldn't tell you the cost.

Q. What other expense is there besides the wages of the crew, the maintenance of the track and the telegraph operators that you have got to figure on? A. Repair to your locomotives, your roundhouse force to take care of the engine after she is turned over at night, and ash pans cleaned and fire cleaned, the engine coaled up and the watchman to take care of her over night, and the wiper, and then there is the expense of the water. Water is very expensive all along the line.

Q. Why so? A. You have got to pay for every bit of water you use, unless it is some mountain stream, and there are very few of them. We have got to pay the property owners for the water.

Q. Explain that a little. A. I cannot just exactly remember what our water bill is at Moosic.

Q. Can you tell us about what it is? A. I think it is $150 every three months.

Q. For water just at Moosic? A. For water at Moosic for locomotives. That would be $600 a year. I think that is correct.

Q. How many other watering places do you have up there where you have to pay for water? A. We have to pay for water at Laflin, near Yatesville.

Q. What other places? A. At S. C. R. R. Junction; we had to buy property there, and also to buy property to lay our pipe from the dam to the tank. That cost us about $1500 for that right.

Q. Besides the expense of erecting your water tanks? A. Yes, sir.

Q. And maintaining them? A. Yes, sir.

Q. What other watering places have you up there? A. We have a watering place at Lehigh, and there we have to pay a pump man to pump the water from the Lehigh River.

Q. You have to maintain a pump and a pump man there all the time? A. A pump and a pumper.

Q. To raise the water from the Lehigh into the tank? A. Yes, sir.

Q. So your engines can take water? A. Yes, sir.

Q. What other watering places do you have? A. There is another one at Rinkers. We pay an individual there for water so much a year. I do not recall what the rent is. At Stroudsburg we buy the water from the water company there.

Q. And pay them so much a year? A. So much a month. I signed a water bill there this morning, I think it was sixty-three or sixty-five dollars for one month. That is the way it is all along the line, the water bills at Little Ferry I think are about three hundred dollars a month and about that at Edgewater. A very expensive thing the water question is.

Q. To go back to your day in July, I think you said it

was, in 1899, you had how many loaded cars moving from the mines that day? A. From all the mines we had one hundred and forty-three.

Q. How many engines and crews would be working on those one hundred and forty-three loaded cars and the empties moving the other way to keep the thing going as it goes from day to day? A. Over that division sixty-five miles?

Q. Yes. A. About sixteen or seventeen engines we have to assemble each day to move all we have of cars.

Q. How many crews? A. The crews around the mines, the engines were doubled up, but there was only one engine to a crew on the road.

Q. There would be about how many crews all told for the whole seventeen engines? A. About thirteen or fourteen crews.

Q. Some of them these same crews you have told about, a fireman and engineer and extra brakeman? A. Yes, sir.

Q. That was simply from the mines to Stroudsburg that you had those sixteen or seventeen engines going? A. From the mines to Stroudsburg.

Q. That is a fair day's work, is it, that July day? A. The next day, July 7th, we delivered one hundred and eighty empties to the mines and moved one hundred and eighty-seven loaded. They vary from day to day. There were two different assembling points. This record of July 1st shows three hundred and ten empties delivered to the mines and two hundred and eighty-seven loaded taken from the mines. That was when we had all those mines before they were taken away from us.

By MR. MCREYNOLDS:

Q. What do you mean by "taken away from us?" A. They stopped shipping over the Susquehanna Railroad. Here is on July 1st, 1899, we had Algonquin and Laurel Run and Greenwoods and Sibley mines, that afterwards stopped shipping over the Susquehanna Railroad.

Q. How did they ship? A. They shipped over the Delaware and Hudson, or the Delaware and Hudson took their output.

By MR. TODD:

Q. You spoke of two assembling points. What were they? A. One was at Yatesville, and one at Jermyn Junction. The assembling point at Yatesville was from Algonquin and Laurel Run. The Delaware and Hudson took those two mines away from us, and we stopped the work at that Yatesville point.

By JUDGE MOOT:

Q. Give us for a few days in July the loaded and empties handled? A. June 20th, 1899, two hundred and seventy-eight empties delivered to the mines, two hundred and eighty-five cars of coal taken from the mines. June 22d, 1899, two hundred and seventy empties delivered to the mines and thirty-six cars of coal taken from the mines.

Q. How many mines? A. For that day was Algonquin, Laurel Run, Fernwood, Miners and Ridgewood—that was received from the Delaware and Hudson at Yatesville, private coal from the Delaware and Hudson Company, received from the Delaware and Hudson at Minooka, from Greenwood 1 and Greenwood 2, Jermyn 1 and Jermyn 2, Sibley and Brookside washery.

Q. By private coal you mean what? A. The Delaware and Hudson some short time gave us their own coal to haul over our line.

Q. Do you know why that was? A. I do not. That commenced the first day of January, 1899, that they did that.

Q. How long did they continue to do that? A. For several months I would say.

Q. Then they stopped? A. Then they stopped.

Q. Have they done it since? A. No, sir.

Q. Why that was, can you explain, or do you not know? A. I do not know anything about it.

Q. You only know that they did? A. My record shows private coal received from the Delaware and Hudson railroad at Yatesville.

Q. About how much was there of that private coal on the Delaware and Hudson? A. Number of cars of coal

shipped over the W. B. and E. Railroad division and delivered at Stroudsburg July 1898 to June 30th, 1899, 70,364 cars, of which 10,953 cars were D. and H. private coal for Weehawken. July 1899 to June 30th, 1900, 72,138 cars, of which 7,546 were D. and H. coal. The next notation after that is "no private D. and H. coal handled." That notation is after June 30th, 1900. Then it stopped. I kept a special record of that coal.

Q. You have given us an aggregate of the D. and H. coal in those figures you have just read? A. Yes, sir.

Q. How were the D. and H. mines? Were any of the D. and H. mines right handy to your lines? A. No; they were not.

Q. How far away were they? A. I say they were not—they were situated in different parts of the region.

Q. How near to your lines? A. I think their first one was probably five or six miles away. I do not know what mines this coal came from.

Q. Do you know anything about the location of these mines? I do not mean technically and accurately, but I mean in a general way? A. I know the lay of the mines through the valley in a general way.

Q. The Delaware and Hudson mines were scattered along in the valley in what direction from you generally speaking? A. They were scattered in both directions, scattered toward Wilkes-Barre and Plymouth to the south, and to the north toward Carbondale.

Q. These Delaware and Hudson mines were scattered along through the valley for about how many miles? A. Probably forty miles—forty or forty-five miles taking all the way down to Plymouth.

Q. Up at the north end of the Delaware and Hudson line the Delaware and Hudson connects with the Erie lines? A. I believe they do at Carbondale. I believe they have connection there.

Q. At the south end of the D. and H. lines, what railroads do they connect with? Do you know? A. They connect with the Lehigh Valley and the Central Railroad

of New Jersey, and Pennsylvania at Wilkes-Barre and use a portion of some of those roads to reach Plymouth.

Q. The D. and H. lines run up through that valley from their connections with the Pennsylvania and the Lehigh and the Central; they run up northerly to their connections with the Erie at the northern end? A. Yes, sir.

Q. This coal that the D. and H. brought to you that was not its own coal but was coal from other mines; they brought coal to you from the two Greenwoods? A. They brought coal to us from the two Greenwoods and from Landclift and from Butler and from Dolph.

Q. About how many miles did they have to haul from those different mines? Give us about the mileage of the haul from each one of them? A. About one mile and a half from Butler, about four miles from Landclift, about eight miles from the Greenwoods, and possibly twenty-five or thirty miles from Dolph. The Dolph coal would be delivered to them by some other company.

Q. Did you pay the D. and H. the same price for bringing that coal to you from all these different mines? A. There were different prices per ton according to the distance. I did not have the tonnage rate that was paid.

Q. Have you any way of getting that? Could you get it from your record so as to tell us what it was? A. I do not know whether I could get that. Those contracts have all been closed long ago.

Q. You did say that you paid the D. and H. if I remember exactly in a single year how much for bringing coal to you? A. We paid them for the year ending June 30th, 1896, $207,198.44. Not only to the D. and H. but to connecting railroads.

Q. That covered all, not simply the D. and H.? A. Yes, sir; covered all the roads that delivered coal to the railroad.

Q. Did any railroad except the D. and H. deliver any considerable amount to you? A. Yes, sir; the Lehigh Valley did.

Q. The Lehigh Valley coal that they delivered to you

came from what mines? A. From Jermyn No. 1, Jermyn No. 2 and Sibley.

Q. That was before you built the Susquehanna Connecting to connect them? A. That was previous to the building of the Susquehanna Connecting, and after we built the Susquehanna Connecting we reached those lines with our own engines.

Q. Then the Lehigh Valley did not give you any more? A. No sir.

Q. At the time of these figures, 1896, which was giving you the more coal, the D. and H. or the Lehigh Valley? A. The D. and H. I believe.

Q. After the Susquehanna Connecting was built so as to cut the Lehigh Valley out, did any other road except the D. and H. deliver coal to you so far as you can remember? A. Not right away.

Q. After a while did some other road begin to deliver coal to you? A. The Erie and Wyoming Valley did later.

Q. When did the Erie and Wyoming Valley begin to deliver to you for the first time? A. It commenced interchanging coal with the Erie and Wyoming Valley at Hillside Junction June 15th, 1901. They gave us coal from Butler mine which formerly had been delivered to us at Yatesville by the D. and H. Then I have another notation here right below that, June 25th, 1901, the first delivery of our cars to the Pennsylvania Coal Co. at Hillside Junction via Erie and Wyoming.

Q. Physically was it possible down to that time—was there connection in there so that you could deliver cars in that way or get cars in that way by Hillside Junction? A. There was a short delivery track connecting the Erie and Wyoming Valley with the Wilkes-Barre and Eastern from the time it was built.

By MR. MCREYNOLDS:

Q. From the time what was built? A. From the time the Susquehanna Connecting railroad was built.

By JUDGE MOOT:

Q. When was that? A. The Susquehanna Connecting branch was opened to Minooka November 25th, 1897.

The Lehigh Valley stopped delivering Jermyn coal to us at Jenkins Junction December 5th, 1897.

Q. From November, 1897, to June, 1901, there was a delivery track between the Erie and Wyoming? A. It was a connecting track.

Q. Between the Erie and Wyoming and Susquehanna Connecting; is that right? A. Yes, sir.

Q. Was it used? A. We used it with our engines to go over in the Brookside washery in the Brownville branch, to take out the washery coal from Dolph and Brookside washery, and we paid the Erie and Wyoming Valley five cents a ton for trackage for doing that, for going over their track. It was practically an abandoned branch, because the Consolidated breaker was not being worked.

Q. How much of this abandoned branch of the Erie and Wyoming track was there that you used? A. Probably a mile or a mile and a quarter over into the Brookside washery.

Q. You mean that between a mile and a mile and a quarter to the Brookside washery, where there was a washery that was washing coal out of the culm bank? A. Yes, sir.

Q. You got about how many cars a day there? A. We got about twelve cars a day.

Q. Out of that washery? A. Yes, sir.

Q. You paid five cents a ton for taking that over a mile or a mile and a half of track? A. Yes, sir. Over this Brownville branch.

Q. Who maintained the track? A. The Erie and Wyoming Valley.

Q. They maintained the track and you paid that trackage? Yes, sir.

Q. What was that? Small coal, steam sizes? A. Washed coal. It was an extremely small coal.

Q. What they call steam coal? A. Yes, sir, steam coal.

Q. It was pea or below? A. It was below pea.

Q. You got this small steam size coal, some twelve cars

a day, in this way over the Erie and Wyoming Valley? A. Yes, sir.

Q. Previous to June, 1901? A. Here is June 20th, 1899, delivered twelve empties to Brookside washery and took out fifteen cars of coal.

Q. So that you were doing that previous to June, 1901? A. Yes, sir.

Q. You were doing it at the date you have given there? What is that? A. June 20th, 1899.

Q. Did you get any other coal over the Erie and Wyoming tracks or connection with the Susquehanna Connecting, except that coal from this Brookside washery? A. That was the only transaction we had with them.

Q. That was the only use you made of the Erie and Wyoming tracks? A. Yes, sir; until the fifteenth day of June, 1901, the first interchange was made with the Erie and Wyoming Valley by them delivering us the Butler coal.

Q. Do you know anything about how much you had to pay the Delaware and Hudson for hauling that Butler coal to you at Yatesville? A. It was either ten or fifteen cents a ton, I can't state which.

Q. About how long a haul did the Delaware and Hudson have to get that ten or fifteen cents a ton? A. About a mile and a half.

Q. Whose cars was the coal loaded in? A. Loaded in New York, Susquehanna and Western cars.

Q. You furnished the empty cars for the coal? A. Yes, sir.

Q. You furnished the motive power to draw the loaded cars away after you got them? A. After they delivered them to us.

Q. For that ten or fifteen cents a ton for a mile and a half at the Butler colliery the Delaware and Hudson did what? A. They came to Yatesville and took the empties to the Butler and delivered the coal back there.

Q. And brought back the loaded coal? A. Yes, sir.

Q. That required an engine and crew of the Delaware

and Hudson to move down to Yatesville and get your empties, move back to the mine with them and leave them, and then hitch on to the loaded cars and bring them back to Yatesville? A. That is correct.

Q. For ten or fifteen cents a ton the Delaware and Hudson maintained its track, paid its crew, kept its engine in repair and moved these empty and loaded cars back and forth from the mine? A. Yes, sir.

Q. About how many cars a day did the Delaware and Hudson handle to the Butler mine in that way? A. If I remember, about the general number was twelve to fifteen. I think that was all we got from them.

Q. Do you know whether you got the entire output of the mine or not? A. I think we did.

Q. A small mine? A. A small mine at that time. When we gave empties to the Delaware and Hudson we just gave them in a bunch to the different mines and we did not know anything about the distribution only we delivered the empties to them.

Q. After this change was made and you got your loaded cars from the Butler mine from the Erie and Wyoming and took your empties into the Butler mine over the Erie and Wyoming, then how was the business done? A. We did not take the empties into the Butler mine.

Q. Who did? A. We delivered them to the Erie and Wyoming Valley at Hillside Junction. They took the empties and delivered the coal back.

Q. About how long a haul did the Erie and Wyoming Valley have to do that? A. They must have had all of five miles to do it.

Q. What did you pay them for doing it? A. That I cannot say.

Q. That is not in your province? A. No, sir.

Q. Could you find that out? A. I could endeavor to.

Q. Will you please do so? A. I will make a note of it and do so if I can.

Q. You spoke of the Pennsylvania coal in the month of June, 1901. What mines of the Pennsylvania Company did you begin to serve then? A. I have a notation

here in my book that on June 25th, 1901, we made the first delivery of Susquehanna cars to the Pennsylvania Coal Company at Hillside Junction. In that case we would receive an order from the superintendent to deliver so many empties to Hillside Junction and that would be the end of our instruction.

Q. The superintendent of what company? A. The superintendent of the New York, Susquehanna and Western. The then superintendent of the road I am now sperintendent of.

Q. You do not know then what mines they went to? A. I do not think I can tell you what mines they went to.

Q. You may not be able to tell what mines these particular cars went to, but, after a while did you learn what mines of the Pennsylvania Coal Company you were serving there in 1901? A. I know that some of the cars that we delivered to the Hillside Junction were taken to the Dolph breaker.

Q. Was the Dolph breaker a breaker of one of the Pennsylvania mines, or some other mine? A. I do not know. I think it was a private mine.

Q. A mine of some other company? A. Yes, sir; then it was only a short time after that that a Consolidated mine opened right at Hillside Junction.

Q. A Consolidated mine; that was a mine of what company? A. I do not know what company that belonged to. I think the Hillside Coal and Iron Company. We would give them the output of the Consolidated mine, because it was handy at Hillside Junction and shipment of coal from Dolph was shipped some other way, because it was so far away from Hillside Junction. It saved the cross haul of empties and loaded cars, and we could take our own engine and go to the Consolidated and do the work there, and for that privilege we paid five cents a ton.

Q. You paid five cents a ton to whom? A. To the owners of the Brownville branch and the Erie and Wyoming Valley.

Q. You paid the Erie and Wyoming Valley five cents a ton for the right to use those tracks to the Consolidated

breaker, and take your empties in with your own engines and bring out the loaded cars? A. Yes, sir.

Q. That arrangement began in June, 1901, or a little later? A. I cannot say exactly. I have a note of it somewheres. Dolph stopped shipping in 1902. The Consolidated did ship some commencing 1900, but we eventually changed that and took all of the output of the Consolidated and did not handle the Dolph.

Q. The amount of the shipments of Consolidated over the Susquehanna apparently were how many tons in 1901? A. Eighty-nine tons, 12 hundredweight.

Q. That was only about three cars or four? A. That was when we first commenced to go in there. Then it increased in 1901 to 105,292 tons and 4 hundredweight.

Q. By referring to this statement you are able to say that you stopped handling the Dolph in 1902, is that right? A. Yes, sir.

Q. In 1901 you really began to handle the Consolidated to any amount? A. Yes, sir. Here is a notation in the book, "Stop sending empties to Dolph on February 28th, 1901. N. Y. S. and W. to have the output of Consolidated."

Q. Do you know whether the Consolidated mine was more conveniently located towards some other railway than the Susquehanna to have its tonnage hauled to market? A. The Susquehanna was right at its door.

Q. Was the natural railway to take that tonnage? A. Yes, sir.

Q. How long had that Consolidated mine been operating, so far as you know, previous to the time you began to really handle its tonnage in 1901? A. It had been closed down entirely, it had not been running as I understand it, for several years.

Q. What was the matter; why was it not running for several years? A. I do not know.

Q. It was started up again then about the last of 1900, and you began to get the output in 1901? A. Yes, sir.

Q. So that you were the first railway to get the output after it started up? A. Yes, sir.

Q. You continued to have that output from that time to this? A. To the present time; yes sir. We go in there now.

Q. Having this statement before you to refresh your recollection with names and dates, can you say whether you began to serve any of the Pennsylvania Coal Company mines at any time, and if so, when you began to serve the different ones, not the date I do not mean, but the year when you began to serve the Pennsylvania mines? A. I cannot tell just which mines belong to the Pennsylvania company. In 1899 we commenced to serve additional mines. I do not know which ones of these mines belong to the Pennsylvania Coal Company or which belong to the Hillside.

Q. Here is a statement furnished as a correct statement known as Exhibit 79, on page 169 of the printed exhibits, and which gives the Pennsylvania Coal Company collieries, Hillside Coal and Iron Company collieries, and other collieries located on or reached by the line of the Erie Railway. Look over that list of collieries and see which ones, if any, the Susquehanna began to serve and when the Susquehanna began to serve them? A. It began to serve Barnum in 1901.

Q. The Susquehann began to serve the Barnum colliery in 1901, and the Barnum colliery is given in this list as a colliery of the Pennsylvania Coal Company? A. Yes, sir. That is correct. It began to serve the Central colliery in 1901.

Q. That is another one of the collieries given in this Exhibit 79 as a colliery of the Pennsylvania Company? A. Yes, sir. It began to serve the Old Forge colliery in 1901. It began to serve Ewen in 1901. It began to serve No. 6 breaker in 1902. It began to serve No. 14 colliery in 1902. It began to serve No. 5 colliery in 1904. It began to serve Gipsy Grove in 1904. It began to serve No. 1 breaker in 1904.

Q. The service to the Gipsy Grove in 1904 is very small, 37 tons and 12 hundred-weight, is it not? A. Yes, sir; 37 tons and 12 hundred-weight.

Q. 1907, it is 70 tons and 13 hundred-weight? A. Yes, sir.

Q. In 1906 nothing? A. That is correct?

Q. In 1907? A. It is 826 tons and 18 hundred-weight.

Q. In 1908 it is 212 tons, 9 hundred-weight? A. Yes, sir; that is correct.

Q. So that service was apparently a service of accommodation in some way, you could not have been taking much of the tonnage of that particular mine? A. No, sir. It certainly did not run for that amount of tonnage.

Q. No mine could run on such a small tonnage as that? A. No, sir.

Q. Do you happen to know about Gipsy Grove, whether it is much of a mine or not? A. It is a small place, as much as I can recollect.

Q. Take for 1902 No. 6 breaker, the service was 6070 tons and 14 hundred-weight. Would that be any part of the tonnage, or would that be just an accommodating tonnage? A. That would be a small portion of it.

Q. Rather accommodation than giving you the tonnage? A. I should say so.

Q. The next year it is 15,263 tons and 15 hundred-weight? What would that be? Would that be accommodation? A. That would be accommodation.

Q. The next year, 1904, it dropped down to 6350 tons and 5 hundred-weight. That still would be accommodation? A. Yes sir.

Q. The next year it gets up to 18,652 tons and 4 hundred-weight. That would be accommodation? A. Yes, sir.

Q. The year 1906 is 26,222 tons and 10 hundred-weight. How would that be; as an accommodation? A. That would be more accommodation.

Q. In 1907 it gets up to 49,757 tons and 3 hundred-weight. How is that? A. That would look like business, more as if we got the most of it.

Q. That was a year of congestion of the railways, was it not? 1907 was your big railway year, was it not? A. Yes, sir.

Q. Do you happen to remember whether in the year

1907 the Erie was unable to handle a good deal of its tonnage and the Susquehanna got more tonnage for that reason, or do you not remember about that? A. Yes, sir; we did.

Q. Was the same thing true to a certain extent, in 1906? A. Yes; from about 1906 to the present time.

Q. It is more or less true? A. Yes, sir.

Q. In 1908 it is 22,575 tons and 17 hundred-weight. How was that? A. That would only be a small proportion. But you cannot tell anything about that, because some of that coal might have been sent to local points, and some sent through.

Q. That tonnage does not enable you to answer the question fully? A. It does not, because it is often sent to local points and sometimes through points, according to the condition.

Q. In other words, if somebody down on a local point of the Susquehanna ordered the coal of that particular mine, then it would go necessarily over the Susquehanna to reach the person at the point from which it was ordered if the Erie did not reach that point? A. That is right.

Q. Without going over all these various breakers that you have identified of the Pennsylvania, as this statement will speak for itself, can you give us any idea of about how large the tonnage is when it gets to a point that it indicates that your Susquehanna is really getting the tonnage of the mine, or a goodly portion of it, for some reason? A. I cannot determine what the output is of each particular mine. I cannot do that.

Q. Do the mines vary largely in their output? A. Yes, sir.

Q. From about what output to about what output? A. I have no figures on that.

Q. You do not recollect that? A. No, sir.

Q. To take an illustration from this statement that is before me, here is Jermyn No. 1 seems to have 202,398 tons and 19 hundred-weight output for ten months in the year 1908. That would be a pretty good output from a mine? A. That would be an excellent output.

Q. For the year 1903 it seems to have 248,292 tons output. That would be a good output for a mine? A. It would.

Q. Next year it dropped down to 199,177 tons and 9 hundred-weight, in 1904 of an output? A. That would be pretty fair.

Q. In the year 1905 it dropped down to 72,346 tons and 9 hundred-weight? A. If I recollect aright the mines were idle a couple of months in the early part of 1906 on account of the strike of April and May.

Q. That would account for that great decrease in output? A. Yes, sir.

Q. Take this exhibit and follow it a little farther. The list of mines for the Hillside Coal Company given is the Butler colliery ——. A. The Butler colliery began to ship via Hillside Junction in 1901.

Q. It shipped how much? A. 118,822 tons and 17 hundred-weight.

Q. It immediately dropped down after that and continued to remain very much lower until 1908, when for ten months it ran up to 80,383 tons, five hundred-weight. Can you tell why it started in big the first year and then dropped down as it did, until this year, and then it came back again? A. I cannot.

Q. Do you know whether you were getting the output in between, or whether some other company was carrying part of it? A. The only company that could carry it would be the Erie Railroad.

Q. If it did not go by your line then it would go over the Erie and Wyoming, the Erie would get it? A. Yes, sir.

Q. Whether that was what happened or not, you do not know? A. No.

Q. Take the next one of the Hillside Coal Company, that is the Consolidated colliery that you have been telling us about, where you commenced and got 89 tons and 12 hundred-weight in 1900? A. Yes, sir.

Q. The next year you got what? A. 105,492 tons and 4 hundred-weight.

Q. Do you know whether that was the entire output of that mine or not in 1901? A. I think it was.

Q. Then it dropped down in 1902? A. There was a strike in 1902.

Q. That accounts for that does it? A. Yes, sir.

Q. In 1903 it goes up to 200,945 and 2 hundred-weight? A. I should imagine from what my memory is that we had the entire output.

Q. In 1903, 1904 and 1905 show a decrease. Do you know whether you were still getting the full or not? A. I think we were getting the full tonnage. It might be that the mine did not work steady.

Q. In 1906 the total goes up again to 142,670 tons 2 hundred-weight. Do you know what the reason might be for that increased output again as compared with the year before? A. It might be the demand for coal.

Q. And there is a still further increase in 1907, although it is not then as large an output as it was in 1903. Can you account for the increase in 1907 except by demand for coal? A. That is the only way I could account for it.

Q. For the year 1908—have you been getting all the output, do you think, for 1908? A. I think we took all the output from that mine.

Q. If that is so, then the difference in the output from year to year is due to either demand or to breakages or mining conditions of one kind or another? A. Yes, sir.

Q. Take the next one, the Hillside Company, the Clifford colliery. Did you handle any of that? A. I do not find any record of that. No, sir.

Q. The next one of the Hillside, Forest City colliery. A. None of that.

Q. The Temple Iron Company, the Sterrick Creek, did you handle any of that? A. We commenced to handle Sterrick Creek in 1899, and we received 38,826 tons 1 hundred-weight.

Q. Have you been handling Sterrick Creek ever since? A. We handle Sterrick Creek at the present time, according to this statement.

Q. You handled some of the Sterrick Creek in 1899? A. Yes, sir.

Q. You handled a little more in 1900; is that correct? A. Yes, sir.

Q. You handled very much less in 1901; is that correct? A. Yes, sir. As I understand it, we only received a very small portion of that output, merely an accommodation movement.

Q. In 1902 you handled none? A. None.

Q. In 1903 you handled none? A. No, sir.

Q. In 1904 you handled a little, 4942 tons? A. A very small amount.

Q. In 1905 you handled a little more; is that right? A. Yes, sir.

Q. In 1906 still less; is that right? A. That is correct.

Q. In 1907 you got back to about three-fifths of what you handled the first year, 1899. Is that correct? A. That is correct.

Q. Last year, ten months of 1908, you dropped back again to a smaller amount? A. Yes, sir.

Q. Can you tell why these changes occurred from year to year, or was it mere accommodation? A. I should judge that coal was sent to us because it could not be handled in any other way.

Q. You were handling it as an accommodation for some other line that could not? A. I take it that way.

Q. Can you tell what line it would be accommodating? A. It would accommodate the Erie. It was her coal. Temple coal is Erie coal.

Q. Does the Erie reach that mine? A. Yes, sir. I think they do go down across from Winton Junction, I think they have a track connection with Winton Junction into Sterrick Creek and there is also a track connection from the Delaware and Hudson into the same mine.

Q. The next mine given as a mine that is on the Erie, or is reached by the Erie, although not owned by either the Pennsylvania or the Hillside or the Temple, is the

Green Ridge Coal Company. A. We handled some of that in 1901, 7883 tons and 2 hundred-weight. Nothing in 1902. Nothing in 1903. Nothing in 1904. 849 tons and 17 hundred-weight in 1905. 30 tons and 5 hundred-weight in 1906. 1514 tons and 7 hundred-weight in 1907. Nothing in 1908.

Q. Those figures would indicate what with reference to that mine? A. They would indicate that that coal was given to us to handle because it could not be handled by the Erie.

Q. In other words, all you handled that the Erie did not handle, you handled as an accommodation to the Erie? A. Yes, sir.

Q. Do you know how that line is situated with reference to that mine as compared with the Erie line? Which is the most convenient line to reach it? A. We do not reach it at all. It has to be hauled to us.

Q. Over what line? A. Over the Erie road.

Q. That would come by way of Hillside Junction then? A. Yes, sir.

Q. When you say over the Erie, you mean the Erie and Wyoming? A. It is Erie now, but it was formerly Erie and Wyoming Valley until later on.

Q. When you say it is Erie now, you mean the Erie operates it now? A. Yes, sir.

Q. Did that Sterrick Creek coal come also over the Erie and Wyoming Valley? A. Yes, sir; to Hillside Junction.

Q. And this Hillside coal from its Hillside colliery, did that come also over the Erie and Wyoming Valley? A. Over the Erie and Wyoming Valley to Hillside Junction. That was the only way it could come, the only connection.

Q. Pennsylvania Coal Company coal from its various mines, that came over the Erie and Wyoming Valley too? A. Yes, sir. Delivered at Hillside Junction.

Q. So that all this coal that you began to get from the Pennsylvania Coal Company and the Hillside Coal Company and the Temple Iron Company, and these other

companies that are reached by the Erie lines, you got over the Erie and Wyoming Valley by way of Hillside Junction connection? A. That is correct.

Q. Do you know what trackage or haulage or tonnage, or other compensation was paid to the Erie and Wyoming Valley by the Susquehanna for the coal that it handled in this way? A. I do not.

Q. You do not know what the financial arrangement between the two roads was? A. No, sir. In November, 1901, we had to build four thousand four hundred and thirty feet of track at Hillside Junction to take care of this interchange. It cost us $11,821.19.

Q. You mean you had to have additional track on which to put these loaded cars when they came down? A. Yes, sir. Previous to that we had nothing but a little connecting track that would hold about eighteen cars, and it was a very difficult operation, so in November, 1901, these additional tracks were constructed.

Q. Are they used for anything except coal? A. Nothing at all.

Q. About how many hundred feet of storage tracks are there there to hold these loaded or empty cars? A. Forty-four hundred and thirty feet.

Q. Constructed at an expense of how much? A. Eleven thousand eight hundred and twenty-one dollars and nineteen cents.

Q. That is what you call a coal storage yard? A. It is an interchange yard.

Q. A coal interchange yard? A. Yes, sir. Nothing else handled there but coal.

Q. When the Susquehanna engines take empties, it takes them up and puts them in that yard if there is not an Erie and Wyoming engine there to take them? A. Places them in the yard, and they come and get them.

Q. And the Erie and Wyoming engine comes after them? A. Yes, sir.

Q. And when the Susquehanna engine goes away with these empties it hooks onto the loaded cars it finds in

the yard, to the extent of its ability, and draws them away? A. That is right.

Q. And when the Erie and Wyoming engine comes there with loaded cars, it leaves them in the yard and hitches on to the empties and draws away as many as it can to the mines? A. That is correct.

Q. That is what you mean by this interchange yard? A. Yes, sir.

Q. Take the Nay Aug Mines, Nay Aug No. 1 and Nay Aug No. 2, are given as mines reached by lines operated or controlled by the Erie? A. Nothing but a small amount, in 1904, 503 tons; in 1905 1131 tons.

Q. Nothing for any other year? A. No, sir.

Q. That indicates very plainly mere accommodation? A. Yes, sir.

Q. Mere accommodation to some railway line? A. Yes, sir.

Q. Presumably the Erie or the Erie and Wyoming? A. The Erie or the Erie and Wyoming Valley.

MR. MCREYNOLDS:—I desire to interpose, for the purpose of having it appear on the record, that the Government does not assent to this line of examination. Our objection is based upon the proposition that it is utterly and wholly immaterial to any issues which have been raised in this case, and to the whole line of questions which have been propounded we desire to interpose that objection.

JUDGE MOOT:—If Mr. McReynolds will concede that the Erie and the Susquehanna are not competitive lines in any sense except a negligible one, I will consent to strike out the testimony of this witness so far as that feature is concerned, and will stop this examination, and, if he will concede furthermore that gathering coal is worth fifty cents a ton, or thereabouts, I will strike out a little more.

MR. MCREYNOLDS:—The Government will not concede to any such proposition, because it is the custom of railroads to collect fifteen cents a ton, and the competition between the two railroads is manifest by what has been proved by the defendants' own witnesses.

JUDGE MOOT:—As the Government's own witnesses have proved a gathering charge as high as forty cents, I think the counsel may have overlooked that testimony.

Q. Do you find you served the Spencer colliery at all? A. No, sir.

Q. Morss Hill Coal Company? A. No, sir.

Q. The Katy-did colliery of Roberts and Law? A. Yes, sir.

Q. When did you begin to serve the Katy-did? A. That is right next to the Consolidated.

Q. About how far from it? A. About a half mile from Hillside Junction, or a quarter of a mile. We commenced to serve the Katy-did in 1900, 2133 tons 5 hundred-weight. The next year it went up to 54,095 tons 4 hundred-weight.

Q. And it has run along pretty steadily from forty to fifty thousand tons until 1908, has it not? A. Yes, sir.

Q. For the ten months of 1908 it dropped down to what? A. 14,494 tons and 63 hundred-weight. It did not work steady in 1908. We received the entire output from the Katy-did.

Q. That you happen to remember? A. Yes, sir.

Q. Do you know why it did not work steady in 1908 any further than that it did not? A. I think the coal was giving out in the mine, if I remember right.

Q. The Edgerton Coal Company and the Edgerton Washery? A. We started to serve them in 1899, 4443 tons and 10 hundred-weight.

Q. You continued to serve them how many years? A. In 1900 and 1901.

Q. Then it run out? A. Yes, sir.

Q. What was that; just a washery or a culm bank? A. No; I think that was a regular mine. I think it is still in operation.

Q. Do you know whether that was one of the Temple Iron Company's mines? A. No; I do not know.

Q. All you can say is that it shows you served them for three years and then you stopped? A. Yes, sir; for three years.

Q. 1899, 1900 and 1901? A. Yes, sir.

Q. If it had been a mere washery there would have been just about the total that you seemed to have carried, and it would have lasted just about as long as it lasted; is not that about right? A. Yes, sir. I cannot say whether it was a mine or a washery.

Q. You do not happen to remember about that? A. No, sir.

Q. Do you remember about its location? A. No; I do not just remember its location.

Q. Did you serve Woodruff washery? A. No, sir.

Q. Did you serve the Victoria Coal Company, Victoria washery? A. No, sir.

At one o'clock a recess was taken until 2.15 P M.

Q. How is this matter of billing that has been referred to in the testimony of Mr. Smith; do you know how this coal was handled in that respect? A. Coal that came from the mines to be shipped via the Susquehanna and Western Railroad was billed to the coal billing agent at Stroudsburg, and after it had been assembled there, then it was billed out to whatever point would be its destination; either the docks at Edgewater or the local points along the line.

Q. When you say "billed," do you mean that a bill of lading was made out, or that a waybill was made out? A. A regular waybill.

Q. That was what it was carried on? A. That was what it was carried on. If it went to a coal dealer in Paterson, it would give the coal dealer's name, and the car would be switched out at Paterson, and the coal dealer, when the car was placed in his yard, would sign the bill, and then the bill would be delivered to the agent as evidence that he had received the car.

Q. Did you have a yard at Stroudsburg? A. We had a yard at Stroudsburg; yes, sir.

Q. An assemblage yard there, how large? A. It would hold probably five hundred cars loaded and empty. And

also in those tracks would be included the tracks that we used for repairs to cars and engines.

Q. Stroudsburg was in which State? A. Pennsylvania, sixty-five miles from Wilkes-Barre.

Q. Was there any attempt made to maintain any kind of a bill, waybill or any other bill, for the customer that was to get the coal until the coal got to Stroudsburg? A. No, sir. That would be the point that the destination of the coal would be determined.

Q. Was there an office in Stroudsburg where this work was done? A. A coal billing agent there.

Q. That is where he was? A. Yes, sir.

Q. Was there any reason why that was the method of doing the business, why it was done in Stroudsburg? A. Yes, sir; there was a very good reason for that. If it were billed at the mines it would be detained, every car would be detained at one or the other in the movements to the different summits where it would be assembled, Pocono Summit, for instance, a solid train to be taken there. Suppose that it would be moved to one summit, and would be at the back end of the switch, and that car would be billed to some point on the line, say Paterson or Hackensack, it might stand there for two or three days, you could not get back to it to move it on. If you bill all coal to Stroudsburg irrespective of its destination, the billing agent would be able to bill out the coal to those that needed it most, or be able to distribute it more evenly.

Q. The short of it all is, that by having the coal taken to Stroudsburg to your yard there and billed from that point, you were able to prevent delays? A. Prevent delays; yes, sir. A man could order his coal any time today, and the orders would go to the agent at Stroudsburg and, of course, it would be billed direct from there, or, otherwise, it might be up on the Wilkes-Barre and Easton mountain at the back end of a switch, and stand there a week.

Q. By having a yard at Stroudsburg and billing at Stroudsburg, the agent had —— A. Full control.

Q. If he had coal at Stroudsburg he could fill the orders as they came in? A. Yes, sir.

Q. That facilitated and expedited the business? A. Very much.

Q. To Stroudsburg, when you say the coal was billed, you mean that it was not billed to anybody except the company itself? A. Just billed to the billing agent.

Q. To the billing agent? A. Yes, sir; T. F. Kane, billing agent.

Q. It was all carried on these memoranda or manifests to T. F. Kane, billing agent? A. Yes, sir. If I remember right, I think that is the way the manifests read.

Q. That is your best recollection of the way the business was done? A. Yes, sir.

Q. Then he filled the orders from that? A. Yes, sir.

Q. You speak of Pocono Mountain and lifting the coal up to Pocono Mountain four or five or six cars at a time with these engines. Was Pocono Mountain the point where you could first get what you call a coal train together to go along? A. Yes, sir. That would be a point.

Q. That was about how many miles from the start of the coal at the mines? A. Forty-two miles. We would keep lifting this coal up in small quantities.

Q. When you speak of fifty cents as your estimate or best judgment of the cost to the company of gathering this coal together for transportation to tide, you mean for gathering it together for transportation to tide at what point? A. I meant at the top of the hill.

Q. You meant the top of Pocono? A. Yes, sir.

Q. You meant the fifty cents would cover it up that forty-two miles? A. Yes, sir. I think I do the company injustice in saying that. I think it would cost more than that.

Q. You think it would? A. I think it would.

Q. That is your honest judgment, that it would cost more? A. Yes, sir. On account of the heavy grades and small quantity of cars you have to keep moving. One

engine at the present time can only haul ten or eleven cars to that point, the large cars.

Q. From that point on down to Edgewater is how far? A. I think it is about one hundred and twenty-two miles

Q. Your road is about one hundred and fifty-eight miles long? A. I think it is just one hundred and fifty-eight miles from Jersey City to Moosic, or one hundred and sixty-five to Wilkes-Barre. We abandoned the Wilkes-Barre Terminal.

Q. Mr. Todd suggests whether there is any difference between Jersey City and Edgewater. A. It is about nine miles to Little Ferry Junction from Jersey City, and Little Ferry Junction is where you go in to Edgewater.

Q. Is it further from Edgewater to Wilkes-Barre than it is from Jersey City? A. No; I think it is about six miles less.

Q. So that from Wilkes-Barre to Edgewater would be just about one hundred and fifty-two miles? A. Yes, sir; about that.

Q. You abandoned some of that line at Wilkes-Barre? A. Yes, sir. We abandoned the Wilkes-Barre Terminal.

Q. You only operate up to what point? A. We operate to Plains, about three miles from Wilkes-Barre.

Q. So that your point from which you operate to Edgewater then would be about one hundred and forty-nine miles? A. About one hundred and fifty-six miles, I think. That is, to Plains.

Q. From Plains to Edgewater? A. Yes, sir; about that. I have not figured the exact mileage.

Q. When did you abandon this road down to Wilkes-Barre? A. I think in the winter of 1904 and 1905 if I remember right.

Q. Why? A. There was no business there. It did not pay.

Q. Did you not ever have any Wilkes-Barre business? A. We had some. Very little. We were on the outskirts of the city, in fact, over the other side of the Susquehanna River.

Q. The other railroads were in the ——. A. Center of the city.

Q. On the other side of the river from you? A. Yes, sir. We had two New York passenger trains when we first started, and we abandoned both of them.

Q. About when did you abandon both of your New York passenger trains? A. We abandoned one of them just a few months after we put it on.

Q. How much of a train was that? A. That was a combined baggage and coal, smoker and a coach, two cars.

Q. And the other one? A. The other one was about the same kind of a train.

Q. About when did you abandon that? A. I think we ran that about two years, and then we stopped that and just ran a local train from Wilkes-Barre to Stroudsburg without any connection to New York. I cannot tell you exactly unless I had some of the old time-tables to look at.

Q. Your first running of passenger trains to Wilkes-Barre was when the Wilkes-Barre and Eastern was opened? A. First opened; yes, sir.

Q. That was in 1894? A. Yes, sir.

Q. And you abandoned the first one of those trains a few months afterwards, you say? A. Yes, sir. A very short time afterwards. I think we only ran six or eight months.

Q. The second one you think you ran about two years? A. I think we ran that about two years, and then we stopped that and then ran a local train between Wilkes-Barre and Stroudsburg without any New York connection.

Q. By local train you mean a train that was mixed passenger and freight and everything. A. Mixed passenger and coal train; yes, sir.

Q. You did not attempt to make through connection at Stroudsburg to New York? A. We did not.

Q. You quit making through connection at Stroudsburg with New York how soon after you opened the road in 1894? A. As near as I can tell you, about two years and a half.

Q. After that you did not run any through passenger trains to New York? A. No, sir.

Q. Suppose a passenger came down from that country wanting to go to New York, how did he manage it when he got to Stroudsburg? A. They did not patronize the road at all. That was the reason we abandoned the service. The Lehigh Valley was the prevailing road for most of them.

Q. You could not compete with them? A. No. I have seen passengers miss the Lehigh Valley train that would not walk one block to the New Jersey Central; they would wait for the next Lehigh Valley train. The New Jersey Central Railroad was a hundred per cent. better than ours. Ours was what you call a jerkwater, it was put on a side track every freight train you met.

Q. The passenger was nowhere compared with the coal? A. No, sir.

Q. Let us follow your coal from Stroudsburg on down through to Edgewater. You say it took about seventeen engines working right along with their crews to get your coal along day by day to Stroudsburg. From Stroudsburg to Edgewater take up your train and follow it along through, and tell us what happened to your coal train. A. I will give you an illustration of the train leaving Stroudsburg from the dispatcher's memorandum in this book. On April 1st, 1909, engine 89, train 80, left Stroudsburg with twenty cars of coal, which was 2048 M's, that is, thousand pounds. Engine 109 with train 82 left there with twenty-two cars, 2759 M's. Engine 88, train 84, left Stroudsburg with nineteen cars, 2580 M's. Engine 87 with train 86 left Stroudsburg with nineteen cars, 2609 M's.

Q. M is what? A. Thousand pounds. One thousand pounds constitutes an M. Train 88 with two engines, engine 93 and 86, left there with thirty-two cars, 4517 M's. Different classes of engines have their different hauling capacity, and they are rated according to their power. That was April 1st, 1909. Train No. 380, on Sunday, March 28th, 1909, with engine 95 left Stroudsburg with

twenty-two cars of coal, 2825 M's, and they switched seven cars at Blairstown, and about five cars at Sparta, and they took, as near as I can remember, about ten cars from Sparta to Beaver Lake. Either at that point, or if they had a pusher out at Beaver Lake, they would fill twenty cars there, or if they didn't, they would go to Summit, three miles beyond there, with single engine train, and fill it there, and then they would have to push it and shove them as far as ——

Q. How long would it take a train to run through from Stroudsburg to Edgewater? A. I will give you the schedule time. They are run on schedule.

Q. They run on a schedule usually, do they? A. Yes, sir. (Referring to schedule.) Train 80, the first coal train, is scheduled to leave Stroudsburg at 5.40 A. M., and it is due at Riverside at 1.43 P. M., that is the end of the double track, and from there in it runs as an extra. It takes about probably an hour or an hour and a half to go in to Edgewater. That would be about three o'clock it would reach Edgewater. From 5.40 A. M. to 3 o'clock P. M. That would be a pretty good run. It has so many opposing trains on a single track, but that would be right on time.

Q. That is fully as well as the train will average, is it? A. They will average eleven hours going over the divisions.

Q. From Stroudsburg to Edgewater? A. Yes, sir. We call it a hundred mile run, because we pay the men a hundred miles.

Q. In running from Stroudsburg to Edgewater in that way, and with pushers ——. A. Only one pusher in that run.

Q. With one pusher in that long distance? A. Yes, sir.

Q. From what point to what point? A. The pusher couples in about a half mile west of Oakland station, and shoves it to Camp Gaw.

Q. That is how far about? A. About three miles and a half—three miles and four-tenths.

Q. Is that pusher kept especially all the time pushing trains? A. Pushing these coal trains.

Q. How many pushers do you keep there at that point? A. Just this one engine. We assemble the trains as close together as we can so it can take care of them.

Q. So as to move them as economically as possible? A. Yes, sir.

Q. How is it with this coal business? Do you have to keep the coal separate at all? A. We have on an average seven to eight, and I have had nine engines at Edgewater and Little Ferry Junction sizing this coal up and getting it into different sizes to send to the docks to unload in the boats.

Q. Explain that. A. All sizes have to be put together; the grate coal switched together; the egg and the stove coal, chestnut, and the pea, buckwheat, barley and rice, all have to be separated and placed to the tugs just as they want to dump them in the boats. In cold weather, previous to that we have to put them in a steam plant—they have to be steamed. Sometimes they freeze solid in the route from the mines to tidewater, and they have to be steamed for five or six hours before we run out the cars.

Q. Before the cars will dump? A. Yes, sir.

Q. So you maintain a regular steam plant yourself? A. Yes, sir.

Q. At Edgewater? A. Yes, sir.

Q. To thaw out your coal. A. Yes, sir. That retards the handling of the cars in winter time, very severe weather, especially if they have encountered two or three storms en route. Say it would a soft snowstorm and then freeze, and it goes all down through the coal. Sometimes it is just a solid mass of ice, and that all has to be steamed out.

Q. You say you maintain some eight or nine engines and crews at Edgewater, to switch this coal around and separate the various kinds? A. And move it from Little Ferry Junction yard into Edgewater as they can unload it.

Q. You have a yard at Little Ferry Junction? A. Yes, sir.

Q. How much of a yard. A. It will hold probably eight hundred cars.

Q. That had to be constructed at some expense? A. I believe that was charged to the Edgewater terminal expense.

Q. Do you know how many miles of tracks you have at Edgewater? A. I could not say as to the mileage of tracks. There are a large number of switches there.

Q. That is mainly used for this coal? A. Yes, sir.

Q. Does this coal have to pay any storage charges when it stands on the tracks waiting to be unloaded? A. It does not.

Q. Does it have any free time or demurrage time like most freight does? A. It is not included in that at all.

Q. You do not have to unload in forty-eight hours as most freight does? A. No, sir. It does not belong to the consignee until it is dumped in the boat.

Q. Up to the time it is dumped in the boat it belongs to the shipper, whoever the shipper is? A. I suppose that is the condition.

Q. At any rate, it does not belong to the consignee? A. No, sir.

Q. It does not belong to the railroad company? A. I should not judge it did after it was in the boats.

Q. It does not belong to the railroad company before it is in the boats, does it? They are just carrying it? A. No; they are just carrying it.

Q. It must belong to some one. If it does not belong to the railroad and it does not belong to the consignee, then it must belong to the shipper, must it not? A. Yes, sir.

Q. Whether the shipper is a buyer or is a manufacturer, or who he is you do not know further than your memorandums show? A. I am not acquainted with that.

Q. You do not bother yourself about that as long as you get your freight? A. I never make any attempt in any way to know that.

Q. In fact, you do not have anything to do with getting

the freight, do you A. All I do is to handle it after I get it.

Q. The only thin they ask of you is to keep the thing going until it gets ere? A. That is what my part is.

Q. In good cond ion? A. Yes, sir.

Q. You have spo en of this steam plant to thaw this coal out, and of the witching it around that way. Have you any idea how lo g that coal stands there on the average before it is cal d out and unloaded? A. Cars are unloaded very rapid at that terminal, unless there should happen to be som sizes come in that there were no orders for, and the if it accumulated very rapidly we would have to haul at coal back about ten miles to the dumping plant and et it out of the way to give us room for cars that we cou unload and had orders for.

Q. Where is that umping plant? A. That is between Rochelle Park and assaic Junction.

Q. At a place cal d what? A. Coalburg.

Q. There is a du ping or stocking plant there? A. Yes, sir.

Q. How long ha that been there about? A. The grading for that pla was commenced in the Summer of 1901, and six trimme completed in 1902.

Q. Was it built t n in 1902? A. Then the grading was commenced, trimmers seven and eight in the Fall of 1903 and completed the Spring of 1904, grading commenced for trimmers No. 9 and 10 in the Winter of 1905 and completed in the Summer of 1906, making ten trimmers with a capacity of twenty-five thousand tons each.

Q. That stocking lant there with that capacity, and being constantly inc ased all the while looks as if you had to use your sto ing plant some. A. You have to stock your coal the when there is no sale for it and load it very quickly hen there is a sale, to release the cars.

Q. What kind of al is usually stocked at that stocking plant? A. Wha ver the surplus is.

Q. Is that usually repared sizes or steam sizes? A. Prepared and steam zes both.

Q. It depends on the time of the year? A. It depends on the time of the year and the demand for coal.

Q. Is there any way of getting at when you have to stock most of one kind or most of another? A. It all depends on how the sizes come in to you, and whether there is a sale for them. Those that accumulate you have to get out of the way so you can handle the traffic.

Q. About how frequently in a year do you have to stock? A. All times of the year we stock or load, according to the demands for the coal.

Q. Does anybody pay for that stocking, or is that something that the railroad has to stand? A. That is an expense to the railroad company.

Q. Who built this plant? The railroad company? A. I do not know who built it.

Q. You do not know what the expense of building it was, I suppose? A. No, sir.

Q. Does it add any expense to this business, having to stock the coal in this way? A. Yes, sir; it adds an expense to every ton.

Q. You do not know how much that is, I suppose? A. The stocking of the coal depends on the repairs that are made to the plant. It might develop that some tons of coal would cost ten cents to unload them, if you put your repairs in, and another month there would be not so many repairs, and it might reduce the cost to half that. The maintenance of the plant is taken into consideration in the cost of operation.

Q. When you speak of the cost, you are talking of the maintenance of the plant, everything? A. Yes, sir.

Q. Do you know whether it affects the coal one way or the other, favorably or unfavorably, to stock it? A. Unless the coal would lay there. It might deteriorate in value.

Q. Do you know to what extent the moving of this coal in this way breaks it into coal dust so that there is a certain amount of it lost in coal dust, or anything of that kind? A. There is some amount lost in screening.

Q. Do you know how much? A. No; I do not know how much. There is some though.

Q. That you know? A. That all has to be screened out, and the coal properly prepared when it is loaded.

Q. You speak of the Winter freezing this coal when it comes down, so that you have to have a steam plant to handle it. What season of the year is coal most active? A. It used to be there was very little transportation of coal in the Summer, and it would all be moved in Winter time, when we could handle the least quantity of it, and it made it very expensive, the trains were smaller. But in handling a coal storage plant you can spread out your movement of it and give it a better movement.

Q. With these stocking plants? A. With the stocking plants; yes. If there is any shutdown, then that gives you a chance, or if there is very severe weather, to not run your trains in heavy snowstorms.

Q. How many stocking plants have you got on the New York, Susquehanna and Western? A. Only that one at Coalburg.

Q. How many assembling yards have you got on the New York, Susquehanna and Western? A. I do not know just exactly what you mean.

Q. What I mean is, you have got on the New York, Susquehanna and Western yards where you bring these coal cars in and leave them, and where an engine takes out cars to fill up these trains, and all that sort of thing. A. I have described the station west of Stroudsburg. East of Stroudsburg all through trains have to shut off at Blairstown and Sparta, an engine provided for that purpose picks up this coal and takes it down to the top of the hill at Summit east of Beaver Lake.

Q. Are there yards at Sparta or Blairstown? A. Where they stand the coal up; yes, sir.

Q. Those yards will hold how much coal? A. Blairstown probably will hold fifty or sixty cars before you would have to move it. Sparta we could probably put fifty cars in there.

Q. This making the price of coal fifty cents lower in April than it is in March, and forty cents a ton lower in May, and thirty cents a ton lower in June, and

twenty cents a ton lower in July, and ten cents lower in August, has that had any effect on the movement of coal one way or the other? A. Of course, there is always a sale for more coal in April, it seems, than any other month, people buying so much at that time.

Q. On account of this discount? A. Yes, sir.

Q. So that April has become really the busiest month now? A. A very busy month.

Q. Did that use to be so when there was not any April discount, as you call it? A. I do not know. The coal business seemed to fall off about that time, as soon as they began to stop using coal.

Q. This change by which April becomes the busy month instead of a slack month, you attribute to this change in the price? A. I do.

Q. How is April as to being a month in which it is more economical for the railroad company to handle coal than it is in the colder weather? A. The weather conditions are very much more favorable.

Q. Is it a favorable month for a railway to handle coal generally in? A. A good month.

Q. Suppose that a mine is not running because it is a holiday or it is broken down or something of that kind, does that make any difference to the railway company one way or the other? A. One particular mine?

Q. Yes. Take one particular mine. A. Probably you would have to have the same power out, but they would have less to do. You could not eliminate the whole day's service of the crew.

Q. Or the engine? A. Or the engine. When I speak of the crew I mean the whole thing.

Q. Suppose because of severe weather or a holiday or something of that kind, instead of just one mine stopping several mines stop, how would it be then? A. That would reduce our power.

Q. Then you would save by not sending out your engines and crew? A. We would.

Q. They are only paid when they work? A. That is all.

Q. How is it as to whether these mines are worked

pretty steady or not? A. They work steadier now than they used to.

Q. About how steady would you say they worked now on the average? A. I do not think the mines are idle now unless something happens to them, they break down.

Q. You think barring Sundays and holidays, the mine is worked now unless something happens to it, a breakdown? A. I think so.

Q. How long do you think that has been true in a general way in the mining country? A. For some few years past. It used to be that before we built the S. C. R. R. proper, when we were down to Yatesville we were tied up a good many times by the idle miners, a great many times. I do not know what the cause of it was, but I have known times that we would try to keep all of our crews and divide the time up between them, give them three or four days a week, that would be all the time we would have for the crews. Then when it would come along again we would be able to use all those crews, but in order to keep a certain amount of men on hand to be available at any time we would divide the time up. Dividing the time up there has been very little of that in the last few years. It has been mostly full time.

Q. The strike of 1902, do you recall whether there has been any dividing up of time or anything of that kind since that strike? A. I do not think there has been much dividing up of time since that.

Q. That would be your best recollection? A. Yes, sir.

Q. Take the distribution of cars. How do you distribute the cars? Do you distribute them yourself? A. We receive orders how many cars to give to each mine according to their capacity of loading, or what they have left to-day. If we delivered a certain number of cars to a mine to-day and they did not work, or had to shut down for any breakdown or anything, and they had fifteen or twenty cars left over, we would only just try to provide for enough that they could load next day according to the capacity of the mine.

Q. You were trainmaster for the Wilkes-Barre and Eastern for a great many years? A. Yes, sir.

Q. Were you the man that did the distributing? A. No, sir. We would receive orders.

Q. Who did you get your orders from? A. We got our orders from W. A. May, the superintendent of the mines. He would tell us how many cars to give each mine.

Q. Before the Erie took over control of the Susquehanna did May give you the orders? A. No.

Q. Who gave them then? A. Judge Lewis was in charge of that.

Q. Who did he work for? A. New York, Susquehanna and Western Railroad.

Q. Where was he? A. He was at Scranton.

Q. That was his business? A. Yes, sir; previous to that a man by the name of Lewall.

Q. How did he get his information from which you got your orders? A. He had telephone communication with the mines, and they would tell him how many cars they required, how many they had left over, what they expected to do the next day according to the percentage of coal that they were going to mine, to supply the market. That would all be regulated by the demand at the different seasons. In the first place, we would tell him how many empties we had available, and we might not have as many as he would desire to give the mines, so he would ask to distribute them according to their output.

Q. You mean make a pro rata distribution from the supply he had on hand? A. Yes, sir. From the supply he had on hand.

Q. That was done the day beforehand, as I understand you? A. It was done about three o'clock this afternoon for the distribution to-morrow morning.

Q. Has that always been the method of making the car distribution up there since you have known about this country? A. Yes, sir.

Q. Is that distribution done any differently now from what it was done before the Erie got control of the Susquehanna? A. No differently.

Q. Is it done differently on one railroad from what it is on another? A. I do not know. I should judge it was all done the same way, because one mine is capable of mining and loading more cars of coal than another, according to the size of the veins and the distance they have to bring the coal from underground to the mouth of the shaft. I have known mines where their whole day's output, they couldn't produce five or six or seven cars, and another mine could produce fifty or sixty with their facilities. That was all determined that way.

Q. Is there any other way, so far as your observation and judgment goes, by which this car distribution at the mines can be carried on so as to have a fair distribution of the cars? A. No, sir. I think it is a very fair way to do business. At one time there were so many empties left over at the mines and the mines ordered additional cars that they did not need that I went through the mine regions every once in a while to just see what cars were left over at the mines, and I think I have some figures right here that will demonstrate that. Regarding empty coal cars standing empty at the mines on the evening of December 1st, 1900, Greenwood No. 1 eight Greenwood No. 2 six, Jermyn No. 2 fifty-three left over, Johnson No. 2 twenty-five, Green Ridge twenty-four, Dolph twenty-four, Sibley four, Landclift ten, Butler eighteen, Fernwood nine, Laurel Run seven, Algonquin seven, Sterrick Creek seventeen, Miners ten, Brookside Washery fourteen, Ridgewood nineteen, total two hundred and and forty-five empties. On the evening of January 12th, 1901, two hundred and forty-three empties left over at the mines that were not loaded, which could have been loaded if they had seen fit to do so, or had the coal to put in them. On the evening of January 31st, 1901, there were sixty-three left over at the mines. On the evening of February 28th, 1901, one hundred and one left over. I have another memorandum here of "All miners went on strike September 17th, 1900, and resumed work October 29th, 1900. Empties left over at the mines on the last day of working, on the night of September 17th, 1900." Then

it goes on and gives a list of the empties that were left over.

Q. Without following that up, by way of illustration, you would expect some to be left over, would you not? A. That would all depend on the situation of the mine.

Q. You would expect one or two or three or four? A. Yes, sir; generally enough to keep them going the next morning until the engines arrives there. It would all depend on what time the engines served that mine. Your idea would be to have enough empties left there for them to go to work at seven o'clock in the morning until the fresh supply was brought in. There were some cases where they persisted in ordering a great many more cars at night than were needed, and did not consider the fact that they had a large number left over. In that way it took a great many empties to fill the orders if you did not watch it very closely.

Q. In other words, they tied up the empty cars of the railway company by ill-considered orders, so that those cars were standing there earning nobody anything? A. That is right. That is a matter that we have to watch as closely as possible.

Q. Take it the other way; how was it about those fellows wanting cars and not being able to get them? A. There were very few cases of that sort. We gave them all we could haul up. We would sometimes put two engines onto a train from Stroudsburg in order to haul a double train up so that when they reached the top of Pocono Summit they would have all they could haul from there. Every effort was made to advance every empty that was available to the mine each day.

Q. What did you say as to whether during your connection with the Susquehanna at any time there has been any effort to prevent production of coal by not furnishing cars? A. Very rigid orders to advance the cars to the mines as rapidly as possible, followed up by every official of the railroad to do so.

Q. Has there been any effort, so far as you know, to prevent the production of coal by not sending cars to the mines? A. Never to my knowledge.

Q. Has there been any effort to prevent the production of coal in any way, shape or manner, so far as you know? A. Never to my knowledge, and I have been on the ground a good many years.

Adjourned until Friday, April 9th, 1909, at 10.30 o'clock A. M.

NEW YORK, Friday, April 9th, 1909, 10.30 A. M.

Present—The Examiner; James C. McReynolds, Esq., and G. Carroll Todd, Esq., for the United States; Hon. Adelbert Moot, for Erie Railroad, New York, Susquehanna and Western Railroad, Hillside Coal and Iron Company, &c.

Examination of M. E. Johns resumed.

By JUDGE MOOT:

Q. The other day you said something about car heights. Have you since had measurements made to see about those car heights? A. Yes, sir; I had measurements taken the next morning. The large steel coal car—I had No. 49,023 measured, and the height is nine feet eleven and one-half inches from the top of the rail to the top of the car, and the side of the car from the truck to the top is seven feet four inches. I stated about seven feet.

Q. So that that steel body that holds the coal is about seven feet four inches deep? A. Deep, from the truck. The wooden cars—I had No. 45,444 measured, and that is eight feet one inch from the top of the rail to the top of the sash, and the side of the car above the truck is five feet two and one-half inches high. I said about four feet. I was mistaken in a foot and a half.

Q. You got a little too low? A. A little too low. That was just from observation.

Q. The wooden car that you had measured, is that typical of the wooden cars in use back eight or ten years ago? A. That is about a board higher.

Q. Than they were then? A. Than they were then. About four boards. This is a five-board car.

Q. Your recollection of the height ten years ago was substantially correct, then? A. Yes.

Q. The steel car that you had measured, is that a typical car of the steel cars used in the coal trade to-day? A. That is standard, yes, sir.

Q. You say this matter of height of these coal cars is important in what aspect—with reference to loading or unloading or how? A. With reference to the carrying capacity of the cars.

Q. This coal that you carried from the mines down here, did you know who owned it or whether it was handled on sixty-five per cent. contracts, or anything of that kind, yourself? A. Nothing about the way it was handled or any contracts. I had knowledge of some of the contracts that were in effect as to bringing the coal from the mine to our connection at Yatesville or at Minooka, Pa.

Q. You mean by that you had knowledge of the contracts as to the amount paid to another company for using its engine and crew to draw your empty cars up and bring the loaded cars back? A. That is correct.

Q. What did you know on that subject? A. The information was furnished to me by the superintendent of the railroad at that time, Mr. E. E. Loomis.

Q. By refreshing your recollection, what do you find were the amounts paid? A. (Referring to book.) For the privilege of the New York, Susquehanna and Western using the tracks of the Central Railroad of New Jersey, they paid two and one-half cents per gross ton trackage for the use of tracks from the connection of the W. B. & E. to Algonquin mine, as per contract of July 15th, 1893.

Q. "W. B. & E." means Wilkes-Barre and Eastern? A. That is the division. That is the Wilkes-Barre Division and this is the eastern end division.

Q. I say "W. B. & E." was what you generally called the Wilkes-Barre and Eastern, running to Stroudsburg? A. Yes, sir.

Q. You used how much of the track of the New Jersey Central for that purpose? A. It was about a good mile and a half from our main line into the loading tracks of Algonquin, and probably an eighth of a mile farther on into Lower Run.

Q. You reached those two mines in that way, over the tracks of the New Jersey Central? A. Over the tracks of the New Jersey Central Railroad.

Q. They were on the New Jersey Central? A. Both mines, yes, sir.

Q. Could any railroad reach those mines except by some such trackage arrangement with the New Jersey Central? A. No.

Q. You say that was two and a half cents a ton? A. Two and a half cents a ton. And they furnished us with switch keys to unlock their switches to enter their tracks.

Q. They kept their tracks in repair? A. Kept them in repair.

Q. You paid that amount a ton for every ton hauled, according to your mine weights, on your cars? A. I suppose so.

Q. If the New Jersey Central had not made some such trackage arrangement with your company, or some other company, could those mines have got their coal to market except over the New Jersey track via New Jersey Central? A. That would be the only direct route unless they allowed some other railroad to come in, as they did the New York, Susquehanna and Western.

Q. In other words, if they had not rented their tracks to other railroads to come in and get the coal, no other railroad could have gotten the coal but they themselves and been able to take it out? A. Yes. It always seemed

very queer to me that a railroad would allow some other railroad to come in and take coal that they could haul themselves.

Q. For so small a trackage? A. Yes.

Q. Do you know whether much of that trackage business was done there or not in those regions? In other words, were there many railroads that made arrangements with other railroads by which they came in and got coal over their tracks in that same way, or don't you know? A. We had another arrangement with the Central Railroad of New Jersey with their Eberhardt branch that we made in 1896.

Q. What was that arrangement, and what did that do? A. That allowed us to reach Ridgewood and Miners collieries. The Ridgewood had formerly been given to us by the D. and H. at Yatesville, which they charged, I think, either ten or fifteen cents a ton for, and the Miners had been delivered to us at Jenkin's Junction by the Lehigh Valley. That was Miners. I think that that was called Gardner Creek when the Lehigh Valley gave it to us, and they charged us five cents a ton for delivering that coal at Jenkins Junction. Later on we reached that by the Central Railroad of New Jersey, and paid them two and a half cents a gross ton for trackage for the use of a certain part of their Eberhardt branch, as per contract of October 1st, 1896. Then, the contract with the Ridgewood Breaker track via N. Y. S. and W. Railroad, this company pays the Central Railroad of New Jersey four cents per gross ton trackage for the use of a certain part of their Eberhardt branch, as per contract of October 1st, 1895. Previous to that the D. and H. delivered that coal.

Q. At Yatesville? A. At Yatesville. And we constructed almost a mile of track at Westminster Junction to connect with this Eberhardt branch, which was not in use at that time down as far as Miners colliery, and at Miners colliery the Lehigh Valley had a right to use that track certain hours in the day to reach Laflin. I think it was called the Avoca previous to the Laflin. It was situated at Laflin, Pennsylvania.

Q. Then there was a track of the Jersey Central of a certain length. About how long was it? A. About three miles. A very heavy grade, one hundred and five feet to the mile.

Q. That was not being used by the Jersey Central? A. No, sir.

Q. It had been built originally by the Jersey Central for what purpose, do you know? A. I think they built it to reach what they called the old Boston breaker, which mine had given out entirely and was a thing of the past.

Q. So, when that mine gave out that that track was built to reach, then the New Jersey Central had no further use for that? A. That is correct.

Q. Could not the New Jersey Central have used that same track with its own engines to get this coal that the Lehigh and your company got? A. The coal that the Lehigh Valley took was over the D. and H. tracks. They used the Central tracks——

Q. To get to the D. and H. tracks? A. They used the Central tracks to Union Junction, and there they went on to the D. and H. tracks and took this Laflin coal.

Q. Then the Lehigh used this old Jersey Central tracks to get to the D. and H. tracks to get coal from that mine? A. Yes, sir.

Q. Why could not the Jersey Central have used its engines and done the same thing that the Lehigh did? A. They could.

Q. Your company used that old New Jersey Central track to get to those two mines you have named to get their coal? A. Yes, sir.

Q. Why could not the New Jersey Central have taken its engines and crews and done the same thing? A. I suppose they could.

Q. Then, the New Jersey Central apparently preferred four cents a ton, was it, in one case—— A. Four cents from Ridgewood and two and a half from Miners.

Q. It apparently preferred four cents from Ridgewood and two and a half cents from Miners from your company

as a trackage rather than to take the coal itself and do what it pleased with it in the way of hauling it? A. I do not know anything about that, but these are the cold facts, that we did that.

Q. How long did you continue to use these New Jersey Central tracks that way hauling your cars over them with your engines to these mines and hauling the coal away from those mines? A. We still go to Ridgewood, but Miners is dead.

Q. You mean by that that Miners —— A. No more coal at Miners.

Q. The mine known as Miners does not produce coal any more? A. No.

Q. It is exhausted? A. Exhausted.

Q. When did that happen? A. I can tell you when we took the last shipment from there. (Referring to paper.) The last shipment from there was in 1904. There were 4,335.01 tons.

Q. In that year? A. That year.

Q. That was the last? A. That was the last.

Q. Had it been producing a small tonnage, as your statement shows there, for a number of years previous to that? A. 1897 it only produced 2,734.16 tons.

Q. That is a small tonnage, is it not? A. Very small. It was considered a very poor mine—very poor mine.

Q. Were you ever down in that mine? A. Never was down in that mine. I have been down in the next mine to that, Ridgewood.

Q. You have been down in the Ridgewood? A. Yes, sir.

Q. That is still operating? A. That is still operating. It was idle yesterday, and I sent an engine there to take out twenty-two empty cars that were standing there so as to send them to other mines to be used to-day.

Q. How much did that produce last year? A. (Referring to paper.) It is not down here. That is a private coal company. But their average number of cars is about ten to twelve a day. That is what they produce.

Q. That is about what tonnage? A. I should say five hundred tons.

Q. Back in the beginning, when this arrangement was made, and you built that track to get to these two mines, about what was the Ridgewood producing? A. Always about that. That has been their capacity.

Q. About five hundred tons a day? A. Yes, sir.

Q. That is what you call a small operation? A. Very small operation. (Referring to book.) April 24th, 1899, sixteen empties and fifteen loads.

Q. From the Ridgewood? A. From the Ridgewood.

Q. When the Miners was operating, what was their output daily, about? A. On that same day they received ten empties, and there were nine cars of coal taken out.

Q. Is that about typical of the Miners, as you remember it, what it ran? A. I think it used to run about ten empties a day. My records will show about ten.

Q. Your mile of track that you built in order to connect to the New Jersey Central so as to use their track on this trackage basis and get the coal of these two mines, have you any idea how much that mile of track cost you? A. I think it cost us—I don't exactly remember. I did know at the time.

Q. Was it an expensive track or a cheap track to build? A. It was an expensive track, because there was so much filling. I would not undertake to say just exactly, because the cost of a piece of track all depends on your filling, your grading.

Q. The most you can say is that on account of filling it was an expensive mile to build? A. It was, yes, sir.

Q. How was it as to operation? A. It was on a very heavy grade. It was one hundred and five feet to the mile from Union Junction to Westminster Junction.

Q. How long a distance is that? A. Three miles. It is three miles on the Jersey Central and ours seven-eighths of a mile.

Q. How many cars could an engine handle on that one hundred and five feet grade? A. At the present time with one engine they will haul about four or five cars out of

there. One engine with small cars used to haul on an average of seven. About fifteen cars with the two engines. Their average is about twelve of fifteen cars a day over there. One trip could take everything.

Q. Is it a slow piece of work? A. Oh, yes; a very heavy grade.

Q. Take an engine that goes down those two miles with empties. A. They would leave their empties on the way down at Miners, and then they would come out with their coal to Westminster Junction and go back to Miners and take that coal out.

Q. To handle those ten or fifteen empties and loaded cars from each of those mines a day, about how much work was necessary on the part of your engine and crews? A. It generally took them about five hours to do that work in on that branch.

Q. For those two mines? A. For those two mines, yes, sir.

Q. How many engines? A. Two engines.

Q. With two engineers and two firemen? A. Two engineers and two firemen.

Q. And two brakemen to each engine? A. No; not two brakemen to each engine. There were three brakemen and one conductor.

Q. Three brakemen with the two egnines? A. Yes, sir.

Q. You say you have been down in that Ridgewood mine. Just describe it. A. The passages were very small. They calculated on having what they call a four-foot mule in there. That would be four feet high. That is all the size mule that they could work in that mine.

Q. The veins were so small? A. The veins were so very small, yes, sir. Then, they had a slope besides the veins, and I forget the depth of the shaft after you went down there, and then you went down the slope.

Q. You went still deeper? A. Still deeper, on a slope.

Q. How great a distance from the mouth of the shaft did they follow those veins with these mules? A. Quite a distance. Way off. I should think I walked half or three quarters of a mile. A very good distance.

Q. Could you stand up straight? A. Not down there. Only when you would strike a chamber, when you could straighten up.

Q. How high was it from your feet to the top? A. It was supposed to be about four feet.

Q. So that you had to bend over so as to go through a hole four feet high? A. Yes, sir.

Q. How many of those four feet tunnels in following these veins were there from the mouth of the shaft? A. I only went through one of them, but I should judge there were two or three leading off from the shaft. You had to have a light to see, a torch in your hand.

Q. How did they get the coal back and forth through this tunnel to the mouth of the shaft? A. They had small rails there and little mine cars that they would load in the chambers, and then the mules would pull them to the foot of the shaft, and then they would put them on the shaft and raise them up and dump them.

(The Government objects to the whole line of questions. The facts have absolutely nothing whatsoever to do with any issue involved in this case.)

(If the Government's counsel will concede that the cost of mining is such that a large percentage of the mines will have to shut up if the price of coal is appreciably lowered, counsel for this defendant will instantly accept that concession and stop giving any evidence of this character.)

Q. How many mules do they have on one of those little cars? A. I think only one.

Q. That car, loaded, has to come up this incline you spoke of, that slope? A. I do not just remember how they did that at the slope. I think they had smaller cars that they pulled up the slope to the first level. I can't say that.

Q. About how many tons, as you observed it there, is one of those four-foot mules able to haul through this tunnel to the shaft? A. I should judge there were from three to four tons in the small cars.

Q. That was the coal in the lump? A. That was in the lump, taken to the top of the breaker and broken.

Q. Was that pure coal or was there something mixed in it? A. Just as it had been shot down and loaded.

Q. At the end where you got, where the miner was at work, he was using what to loosen the coal? A. He used powder to break the coal, and he had to be an experienced man or he would spoil a good deal of the coal, break it all up into powder. One man could probably blast coal and bring it all out in good shape, and another man would probably spoil half the coal that he blasted.

Q. Now, the miner having put in his charge of powder and loosened that coal that way, then what was done? Did he load it or did somebody else load it in the car? A. I think his helper loaded it into the car, his man with him.

Q. When it was loaded, did the mule take it without a driver or did he have a driver? A. No; a boy driver.

Q. He sat on the car and drove the mule? A. No. The one I saw walked alongside the mule.

Q. Through this hole? A. Through this hole.

(The Government admits the boy walked.)

Q. When they got the coal to the shaft, then what was done with it? A. Put on the car and taken to the opening, and then I believe there was an inspector looked it over.

Q. Was there any stone, or slate, or dirt, or anything of that kind, in this lump coal? A. There always is slate in the coal.

(The Government admits there was ten per cent. of rock and slate.)

Q. Take that particular mine that you were down in that you saw. What have you to say about that? A. That was a very poor mine—supposed to be a very poor mine.

Q. What proportion of this stuff, that you saw in the car was coal when they got it finally sorted out? A. I could not say. I did not observe that.

Q. When they got it up to the mouth of the mine, then

it was put through the breaker? A. Put through the breaker.

Q. And broke those lumps up? A. Broke it up.

Q. To get the slate out? A. It was broken up and put in the rollers and sorted out in the different sizes, and then the slate pickers would be in the long chutes and pick out the slate as it would come down through the chutes.

Q. Finally it came down through the chute in the proper way ——. A. And landed in the car, and then it was re-inspected again and sometimes it had to be picked over again.

Q. As you have explained. How long is that Ridgewood mine going to last? A. I do not think it is going to last very long. I understood when I left the coal regions it probably had a life of twenty years. I understand from the concern that operates it that they are going to throw up the lease.

Q. This coal is mined on a lease? A. I believe so.

Q. When that mine ceases, the Miners having ceased, then what use will there be for the Jersey Central track and the mile of track the Susquehanna built? A. We will have no further use for it. It will be a thing of the past.

Q. If the profit, if they haven't got enough out of handling the coal from those two mines to pay back the cost of the track in addition to the cost of hauling the coal to market, then the whole operation will represent a loss to the railway? A. It certainly would.

Q. Do you know how small these veins are that they mine at the present time when they are considered too small to mine, or don't you know? A. I do not. That is the last time I ever went down the mine. Did I say the Ridgewood mine was the only mine I had been in?

Q. No. You said you did not go into the Miners, but you did go into the Ridgewood. You do not know how thick those seams were when they were working in the Ridgewood when you were there? A. I think they were all about four feet.

Q. That they were working? A. That they were working, yes.

Q. Do you know whether they work seams any smaller than the depth of vein? A. I do not.

Q. If the rates, if all these mines that you understood to be independent, had to pay to the railroad for hauling their coal to tide were the same, what difference would it make to one of those operators whether the Lehigh cars or the Jersey Central cars or the Susquehanna cars came into the breaker's mouth and had the coal put into the car until it was full? A. That would all depend, I think, on where they wished to ship it.

Q. What do you mean by that? A. Say they wanted to ship it to New York harbor. They might be influenced by the location of the terminal docks in the harbor. They are all located in different stations. As I understand it, one might be handier than the others. I should think that would influence them.

Q. The terminal at New York, whether it was advantageously or disadvantageously located ——. A. Providing the rates were the same for the haul. I do not think they would be willing to pay one company more than another. That I do not know.

Q. Edgewater was about how many miles farther up the river than other terminals that had these marine rates here in the harbor? A. I have always understood it was about ten miles to Harlem. I do not just know the distance. That would be ten miles whether it is Jersey Central or the Lehigh Valley over here, and probably half the distance by the D., L. & W. to Weehawken.

Q. So that the Edgewater terminals would be from five to ten miles farther up the river than some of the terminals of some of the coal companies? A. I should think so. I do not just exactly know the distance.

Q. But approximately that? A. Yes.

Q. If the customer for the coal was over on the New York side about opposite you said One Hundred and Sixteenth Street ——. A. One Hundred and Sixteenth Street.

Q. If the customer the buyer, were over in that good

residence section of New York, so that all the buyer had to do was to send his boat across the river to Edgewater and get the coal and bring it over to that good residence section, then that would be a favorable direction? A. Yes. There is a concern of that sort, Burns Brothers, right opposite there.

Q. Get their coal from Edgewater? A. Yes. They have a yard of their own over there at Edgewater.

Q. For the buyer of that kind, like Burns Brothers, then the Edgewater Terminal would be a desirable one to have the coal come to? A. Certainly, and then, it might be desirable for other men where these other terminals might be congested in this congested portion of the harbor. It might not receive the prompt dockage that they can receive at Edgewater, as there are two coal docks there. You have four sides of the docks to load, and it is advantageous. I might say right there that we went to the expense of probably $80,000 to dredge at Edgewater to open up the basin on the north side of Pier 2.

Q. When was that? A. That is in the last three or four years.

Q. So as to get better facilities? A. Practically filled up. You could not dock a boat there.

Q. Back in 1897, somebody said that this towing limit was extended to Edgewater, and previous to that, ten years ago, this section at One Hundred and Sixteenth Street in New York had not been built up as it is now? A. No.

Q. That has built up very fast since? Along One Hundred and Sixteenth Street and in that part of New York it has built up very fast in the last ten years? A. Yes; my observation would say that it has.

Q. You do not know whether there was such a concern as Burns Brothers opposite Edgewater, to whom Edgewater was a favorable location back ten years ago? A. I cannot say how long they have been located there.

Q. Or how long any concern has been there? A. Only as some of them that I have named and gave the time of their location. Those I do know.

Q. You gave the names of some of the concerns that were located on the Edgewater side? A. Yes.

Q. The industries? A. Yes, sir.

Q. I am talking about coal dealers like Burns Brothers on the other side? A. I know nothing about them.

Q. I suppose you do not know just what proportion of this coal business is centered in the heart of New York around about the Post Office or the Times buildings as compared with the amount of it up at say One Hundred and Sixteenth Street? You would not know about that, would you? A. From a general observation, I would think that the whole territory was a coal consuming district.

Q. From One Hundred and Sixteenth Street down? A. Yes. From One Hundred and Twenty-fifth Street down.

Q. The territory up above One Hundredth Street, say, having developed in the last few years —— A. That would be more of a residential trade.

Q. It appears by the evidence that the New Jersey Central has four different terminal points in Jersey City or thereabouts and the lower harbor for delivering coal to people at tide, and the Susquehanna had one—this one at Edgewater. Do you know whether that would have any effect one way or the other with a shipper of coal who could get the cars of either the Susquehanna or the Jersey Central to his mine to take his coal at the breaker's mouth at the same rate, or don't you know about that? A. That is a hard question to answer. Circumstances govern all cases.

Q. Back ten years ago did much of the coal that the Susquehanna handled go to what I will call line points on the Susquehanna? A. No; not as much as it does at the present time. The territory along the line of the Susquehanna Railroad in the last ten years has developed very largely by manufacturing concerns locating along it and the increased population, so that really we used to have very small line orders when I was a conductor on the coal trains. Now most all of our output is delivered along the line. We have very few cars coming to Edgewater. And, another point. Trade that has developed. The Erie sends their Greenwood Lake coal down the Susquehanna, and we have a train running every day over the Greenwood Lake as far as North Newark, over that railroad, to distribute that

business to Montclair railway. I have reports here that I have on my desk every day of the movements. Here is a report of March 31st. It is a message from the coal handling agent at Stroudsburg, W. L. Snyder, to myself at my office, stating what coal was billed out that day. "Coal last P. M. no Weehawken, no Coalburg, no Edgewater, 40 line, including 12 for the Greenwood Lake Division and 3 cars Buck for Lodi, 1 P. for North Paterson, engine supplied, 3 grate, Beaver Lake, engine supplied, 1 P., engine supply at Stroudsburg." On March 30th, Edgewater docks unloaded one hundred and ninety-one cars of coal. We did not move them to Edgewater. They were moved there by the Erie. On March 30th, "No Edgewater, on Weehawken, no Coalburg, 24 line, including 2 for Greenwood Lake, none for Lodi, and 11 cars of grate for engine supply at Beaver Lake." March 29th, we unloaded two hundred and one cars of coal at Edgewater. I would like to give you Saturday night and Sunday. We shipped for Edgewater one grate, twenty-four egg, thirty-four stove, twenty-five nut, four rice and nine barley. That was Sunday's shipment, when we hadn't any line orders. On Sunday, the 28th of March, we unloaded one hundred and sixty-three cars of coal at Edgewater—on Sunday. The day before that we unloaded one hundred and seventy-five cars of coal at Edgewater.

Q. A large number of the cars unloaded at Edgewater in those days apparently being cars of Erie coal, where did you get those cars of Erie coal, or did the Erie run them right in over your tracks, itself? A. It ran them right in over our tracks to Little Ferry Junction Yard.

Q. About how much of your tracks did the Erie engines have to use to haul it in that way? A. (Referring to paper) Seven miles and a half.

Q. Did the Erie do all this work itself? What did it do and what did you do? A. They just deposited the coal there, all sizes mixed. We took charge of it with our yard engines, and sorted out the sides and took in what was necessary to fill the orders at Edgewater.

Q. They just drew the coal trains in just as they were? A. Yes.

Q. Steam sizes and prepared sizes all mixed in together? A. Yes.

Q. Then they took their engines off and left? A. Left and went away.

Q. Hauling away such empty cars as they had —— A. They didn't haul away anything, no.

Q. Then you took your engines and crews and took those cars apart so as to put the different sizes on tracks by themselves as you have explained? A. Yes. Supposing there were ten cars of ten different sizes of stove coal. You can't take those ten and promiscuously take them—there are special kinds ordered, and you have got to take out special kinds for special sales. Some man will want a special kind of coal and he won't take any other, and it has all got to be switched out again after you have once sorted out the sizes.

Q. After your coal is taken from the cars, what do you do with the cars? How do the cars get back—the Erie cars? A. We take away what we can with our engines.

Q. Where it has to be taken back to Coalburg because steam sizes and prepared sizes are accumulating, because cars are coming up, and you have to stack some of it, who does that? A. We have to do that.

Q. Do you stack it also at Coalburg? A. Yes, sir.

(The Government objects to this line of questions. The facts being brought out throw no light on any issue at all in this case.)

(If the Government's counsel will concede that the rates on coal are reasonable, counsel will at once desist from giving any evidence of this character.)

Q. Do you know what the Erie pays the Susquehanna, or what the arrangement between them is as to compensation for this work, how it is arranged? A. No; I never saw the tariff.

Q. The Susquehanna is a single track road? A. From West End Junction to Riverside it is double track.

Q. That is about how many miles? A. About eighteen miles of double track.

Q. That is all the double track? A. Yes.

Q. About how many coal cars on the average can you handle over the single track part of the Susquehanna? A. All one of our lower end coal trains can haul is twenty empty coal cars as far as Beaver Lake, fifty-three miles. There are two different grades there, seventy-five feet to the mile.

Q. I am asking now about how many loaded cars a day on the average you can haul over that single track? A. Oh, I understand. One hundred and fifty cars a day is all we can take care of on a single track with all the power we have got.

Q. You have how many engines? A. Generally our power, when running full, on the Wilkes-Barre and Eastern is about seventeen engines. I may have had eighteen some days.

Q. For the whole line, from Edgewater back to the mines, you have on the average how many engines and crews at work in this coal business day by day to handle these one hundred and fifty cars? A. I say about seventeen engines west of Stroudsburg and about ten engines east of Stroudsburg, in the train service. Then, our average at Edgewater terminal is about seven engines a day to take care of the handling of it. Then, that does not include the hauling of the coal from the Coalburg plant to the docks as it becomes necessary to load it.

Q. Just tell about how much more the Coalburg plant calls for? A. That would take one hauling engine and one engine to wait on the plant, and if we work nights, it would take the double crewed engine—a crew at night for both.

Q. Is that about as close as you can get to the engines and crews of the Susquehanna that are used generally day by day in this coal business? A. That is about as near as I can come to it. That is, that would be our maximum movement. That is including the pusher engine. It also includes two engines for taking up the reduced coal at Blairstown and Sparta.

Q. You have other engines and crews in the passenger and freight business on the Susquehanna line? A. Oh, yes; a good many engines in the freight business; local freight.

Q. Can you tell us about how many engines and crews you have on the railroad in the local freight business? A. That varies from day to day.

Q. I want you to give it as close as you can, the variation about how it runs? A. Do you want me to include the yard engines in this?

Q. Yes. A. Twenty-one engines.

Q. That includes engines hauling freight trains of any description and engines handling freight at terminals and so on? A. Yes. That is not including Edgewater terminal, because I counted that in.

Q. As coal? A. Yes. But they do handle some freight business at Edgewater. I have treated it as a coal proposition.

Q. On the other hand, those other freight engines handling merely freight you have treated them as a freight proposition? A. Yes. Now, there are pick-ups handling coal. They will probably place it on a man's trestle in a small town, and go in and pick up the empty and shove his coal up on his trestle. I term that all as freight.

Q. On the theory that one would about offset the other? A. Yes.

Q. Your passenger business. How many engines and crews on the average does it take to handle that? A. That is hard to arrive at unless I study it out, because there are so many crews that run several times in a day.

Q. I will drop that for the present then, and let you study it out and tell us about it later. Then the engines for the freight business—either coal or freight—that you have given me, that is the number in use now, is it? A. That is the number, yes.

Q. Your business is on the increase, is it? A. Yes. Our business is on the increase—very much on the increase in the last two or three months, especially in the

freight and coal business, although more especially in the freight.

Q. Is the business now, on which you have given me your engines and crews, as large—does it require as many engines and crews as it has in the past, the maximum in the past? A. No. We are running more power and working more men now, or have in the past two months than we ever did before.

Q. Than you ever did before? A. Yes.

Q. So that the number of engines and crews you have given me as the maximum number? A. That is a maximum, yes. I wish to say here that if there were any developments of a decrease in business to-morrow we would cut out each particular crew that we did not consider was necessary, and then add it the next day if needed. It is gone over very thoroughly each night.

Q. So as to save as much as possible? A. Yes, sir.

Q. Not to have any idle men? A. That is correct.

Q. Your freight engines and crews that you gave me for the freight business, as about your daily average, that would be about your daily average back for about how long a period of time? A. As far as the freight is concerned, that is a great increase in the number of freight engines.

Q. I was just confining my question to the coal business, as to how far back this daily average of freight engines and crews used in the coal business—— A. We have had more coal service in the past two months that we ever did before.

Q. Leave out the last two months. What difference would that make in the number of engines and crews used in the coal business? A. That would vary. You might say we dropped off two engines some days and have fifteen engines on the Wilkes-Barre and Eastern.

Q. If you dropped out two months could you give the daily average for say the last three or four years in the coal business alone? A. That business varies so much from one season to the other.

Q. But you cannot average it very well, any more than you have? A. No; I do not believe I could give you any better figures on that.

Q. Generally speaking are the figures you have given for the daily average in the coal business fair figures for that business except when it is very much above or very much below the average? A. Those are fair figures, yes, sir. There is one thing about the coal business: Sometimes you have almost the same power and haul a less number of cars, because you haven't the tonnage to haul, but still you have got to keep it moving, and so, like this morning, all of my trains left Stroudsburg with light tonnage because Blairstown was full, and I couldn't give them any more, because there was no room to receive it. There is an instance. There are different circumstances that govern the movements from one day to the other that would be very hard to explain, only as it was known to the operating man in the immediate day's business.

Q. You do not know yourself about coal rates or make coal rates, do you? A. I have heard the coal rates.

Q. I mean this: Is it any part of your business as superintendent to make them? A. No, sir.

Q. Do you know in a general way, as superintendent of your lines, about all your business, about the amount of all your freight business and coal business and so forth? A. I try to keep in thorough touch with it.

Q. Take this Greenwood Lake for instance. You spoke of the Erie sending its coal over the Greenwood Lake Division, and your figures that you gave us seem to show considerable coal business there. What places are there that produce coal business on that division, the Greenwood Lake road?, A. The Greenwood Lake road supplies the towns of Pompton, Pompton Plains, Pequennock, the Wayne Powder Mill, Little Falls, Caldwell, Upper Montclair, Montclair Heights, Montclair, Bloomfield, Soho, Orange and North Newark.

Q. All of them places with more or less suburban residents using more or less coal? A. Oh, yes.

Q. Why does the Erie send its coal to those places over your lines? A. That is a much more convenient and shorter route.

Q. For the Erie? A. Yes, sir.

Q. Does that coal also go to those points—that is coal that comes down from the mines? A. That is the coal that goes there.

Q. The Erie coal that goes there is sent over your line instead of the Erie line? A. They would have to take it to Bergen and then bring it back up the grades to Montclair.

Q. Have you any idea how many miles haul the Erie saves by using your lines than its own for that purpose? A. I think on an average of twenty miles. Say an average of fifteen, taking in all the stations, the nearerby stations.

Q. That would be fifteen miles for the loaded cars and fifteen for the empties? A. Yes, sir.

Q. Making an average haul saved—— A. It saves them being moved through a congested yard at Bergen.

Q. Having in mind that you move your coal cars over that line of one hundred and fifty odd miles, if you fetched them to Edgewater, and then the empty cars go back substantially—— A. I might say right there, there is a large number of those cars that have to be gathered up at all of those local stations, which is a great deal more work than if you had a through movement of them. It is nothing but a pick-up, pick them up at all the places that they have been sent out to the local trade.

Q. So, if they do not go over to Edgewater, they are expensive movements at those line points? A. Yes.

Q. Both in taking them in and taking them out? A. Yes, sir.

Q. Are there any switching charges for either taking them in or taking them out? A. No.

Q. That is done by the company as a part of the—— A. That is a part of the delivery.

Q. No switching charge then, for handling this coal

business either at the mines or at the terminal, whether they are line points or tide points? A. None whatever.

Q. Your other freight business is mainly a local freight business, is it not? A. Yes; a local freight delivery for consignees on the line of the road.

Q. Have you any through freight trains, for instance, on your road? A. No through freight business.

By MR. MCREYNOLDS:

Q. Do you mean to exclude coal from that? A. I am speaking of freight exclusively.

By JUDGE MOOT:

Q. Your freight business, aside from coal, is substantially a local freight business, if I understand you? A. It certainly is.

Q. Do you have many cars of freight on your system that go off of your line on to other lines to distant points? A. Yes; we have, but I would speak of Edgewater. The product of the New York Glucose Company—take several companies in there—but that is a very short haul for us. We do not go in the right direction for that. We have had some long hauls, but very little of it. That was pipe from the Greenland Pipe Works that we moved to Yatesville and delivered to the Delaware and Hudson, but there was not much of that. The general product to points made on points along the Susquehanna Railroad is a very short haul.

Q. For the Susquehanna? A. For the Susquehanna, yes. For the haul they get we have to furnish engine service and take care of it and switch it and to place the cars. A good deal of work to handle a short haul.

Q. The through freight business, then, that originates on the Susquehanna, goes off to other lines mainly from Edgewater and the Susquehanna gets a short haul. A. A short haul.

Q. For which short haul they have to do the switching and the gathering and everything of that kind in order to get it at all? A. That is correct.

Q. And for all that switching and gathering they get

no compensation except out of the rate of their part of the haul? A. That is all.

Q. And their part of the haul being short, they get a small part of the through rate? A. That is the correct statement.

Q. So that their through freight business as to that freight originating on their lines and going off by other through railroads is practically a local freight business after all? A. I would consider it so, yes.

Q. How is it about their getting any through freight business that comes into their territory from other lines? A. There is a very small amount of that that would be very heavy.

Q. That is mainly at Edgewater? A. Say Paterson.

Q. Paterson and Edgewater? A. Paterson, Butler, Edgewater, Hackensack.

Q. All of it very heavy? A. All of it very heavy.

Q. Even getting a small part of the through rate again in that instance? A. Yes; get the prescribed portion.

Q. For that do you again have to do switching in order to make delivery and do it free of cost? A. Yes, sir.

Q. So that that again is practically local freight business? A. I do not see as I can call it anything else. It is not a through freight business. What you would call a through business would be something that passes over your line a long distance. That is something we haven't got.

Q. How is this local freight business or other freight movement as compared with long freight movement, as to expense? A. It is more expensive. The switching that it requires to take care of the different industries is expensive, more than the long haul. That would be a straight movement.

Q. Take your coal business now. What do you say as to whether the coal business on your road is comparatively inexpensive or comparatively expensive to the railroad to do? A. I do not just quite understand that.

Q. I say take your coal business. The railroad has to pay the men and all that for doing this work in mov-

ing the coal, has to build the lines and so forth. What do you say as to whether that coal business is a comparatively inexpensive or a comparatively expensive business for the railroad to do? A. With the grades that we have it is very expensive business. That is all due to the very steep grades that we have; difficulty in moving.

Q. What difference do the grades make with the expense of the thing? A. The hauling of the number of cars in each particular train. It is a very expensive operation when you take one engine as a unit and it can only move five cars.

Q. Where if the grade was different you could move twenty? A. Yes.

Q. You would be governed, of course, by the grade. If the grade was different you might move even twenty, if it was good enough? A. Yes, sir.

Q. With the same engine? A. Oh, yes.

Q. Would it be four times as expensive, for instance, to move coal when you had to move five cars at a time than it would be twenty at a time? A. It would be just that much more expensive.

Q. Are your curves on the Susquehanna of any consequence one way or the other in the expense of doing your business? A. The road west of Stroudsburg, I have heard the number of curves that are in it. I do not think there is a piece of straight track in it.

Q. How are the curves as to being easy? A. They are from eight to ten degree curves. That means that it is a very hard haul around the curves; it gives a resistance to the train movement.

Q. It takes more engines to pull around those sharp curves? A. Oh, yes. Every additional engine that you add to a train increases the length of it, but you can't double the load.

Q. Two engines won't pull twice as many cars as one? A. Won't pull twice as many as one engine. Therefore, you have to reduce the load on account of the resistance. You have to allow so much for friction.

Q. These bad curves on the Susquehanna, these sharp curves, are any of them steep grades? A. Yes.

Q. Many of them? A. Oh, yes; all along the line. The piece of road from Stroudsburg to Pocono Summit is nothing but a continuous number of curves.

Q. Is that what makes it so difficult to haul these empty cars back over the Susquehanna? A. Yes. Then, especially in bad weather, on account of the rail. That influences the hauling.

Q. In other words, if snow or rain falls and wets the rail on a bad curve and a bad grade —— A. You have to reduce your tonnage. You have to reduce the load on your train according to the weather conditions, or according to if it is damp. A damp day would be worse than a heavy rain. The rain would wet the rail; but the dampness is what makes the rail greasy; and in the Fall when the leaves are falling, that is as bad as any other condition, for a slippery rail. But, invariably, when we have a bad rail, we have to reduce the tonnage of the train.

Q. All that means engines and men and time and expense to the railway company? A. If you have to reduce your train load one car, and you do that fifty times, that means fifty cars and fifty times, and then you can just add up how many men it would take to haul those fifty cars. That is the way to get at it. It is very difficult to handle railroad traffic on heavy grades.

Q. Comparing your local freight that you handle and your coal that you handle for the same number of miles, the movement, which would you say was the more expensive freight movement of the two, if you can tell? A. There is no comparison between the two. Practically the coal runs over a long distance and the freight is confined to a shorter distance. I do not just exactly know how I could explain that.

Q. Let me get at it in another way. You have substantially sixty-five miles of track from Stroudsburg west to the mines? A. Pretty near, yes, sir.

Q. Is that used for anything except coal, substantially? A. Probably three months in a year it is used for the ice trade.

Q. To the Pocono Mountain? A. Pocono Mountain.

Q. Aside from the ice business on Pocono Mountain, does this sixty-five miles of track west of Stroudsburg have any business, bring the company any business except the coal business? A. Practically nothing except the coal business.

Q. So that whatever is earned in handling freight for this company outside of the ice business, that is earned substantially by the miles of track independent of that sixty-five miles west of Stroudsburg? A. Yes, sir.

Q. Do you know about what the mileage of your road as a whole is? A. Side tracks and double tracks?

Q. Yes. A. I think our reports call for two hundred and thirty-eight miles of railroad. That is the entire tracks.

Q. Side tracks and all? A. Yes, sir.

Q. If you take out sixty-five miles and call that coal tracks, that would give you the balance of the track that is used to earn freight money and the other freight business aside from the coal business? A. It would. It would still give us a large amount of trackage that would not be available for much freight.

Q. That would not bring it anything except handling coal? A. That is right.

Q. Can you give us any idea of how much of the mileage after you have taken out the Stroudsburg track, how much of the mileage of track left is still mileage that is used substantially for coal? A. I would say west of Blairstown.

Q. That would be about how many miles? A. About eighteen miles.

Q. Are there any other miles aside from the mileage from Blairstown to Stroudsburg that you would take out as mileage substantially devoted to the coal business? A. I think I have covered it.

Q. How is it about the mileage up there at Edgewater? Is there any of that that you would take out as substantially devoted to the coal business, or would you say that those industries at Edgewater get that —— A. I would consider that we would have to retain that track for the industries regardless of coal.

Q. So you think when you have taken out the mileage

from Blairstown —— A. I think we would then confine ourselves to the freight territory.

Q. Would that also be true of your passenger earnings that you would take out, the mileage from Blairstown west through Stroudsburg towards Wilkes-Barre in getting at what fact you had that was earning money in the passenger business? A. The passenger business would not pay as far as Blairstown.

Q. How much of the trackage of your tracks there would you reserve as actually earning something for the expenses in the passenger business A. I would cut it right off at Sparta.

Q. That would leave what mileage in the passenger business? A. It is fifty-nine and nine tenths miles from New York to Sparta.

Q. From Sparta west it is how many miles? A. From Sparta to Blairstown?

Q. No; from Sparta clear though west to the mines? A. It would take off one hundred and two miles.

Q. That you would take out of the mileage or passenger fares? A. Yes, sir.

Q. All this mileage that you have taken out, how does that mileage compare with the mileage that earns money in the passenger business and in the other freight
ness, as well as in the coal business, as to being expensive or not expensive to build? Is this mileage from Blairstown or Sparta west to Wilkes-Barre more expensive to build or less expensive to build than the rest, in a general way? A. I would say west of Stroudsburg was the most expensive road we had to build, because at Panther Creek there is a large viaduct one hundred and sixteen feet long and one hundred and sixty-five feet high.

Q. Steel viaduct? A. Steel viaduct. Then there is another viaduct across Spring Brook that is eleven hundred feet long and seventy-eight feet high; then there is another steel viaduct across the Delaware and Hudson and the D., L. & W branch that is six hundred feet long and fifty feet high; then there is a steel bridge across the Lehigh

Valley main track near Prospect Breaker; then there is a large steel bridge across the Susquehanna River leading into Wilkes-Barre, and a trestle about seven thousand feet long that must have cost at least $80,000 to build. That was a very expensive piece of railroad.

Q. From Stroudsburg through? A. From Stroudsburg west.

Q. On account of these bridges and trestles and grades and curves and all the rest? A. Yes, sir.

Q. Fills also? A. Oh, yes; very high fills.

Q. You have abandoned how much of that expensive track and bridging and all that? A. Abandoned about three miles, from Plains to Wilkes-Barre, Pennsylvania.

Q. You abandoned that? A. Yes, sir.

Q. What was that built for—to get coal or passengers or to get both? A. That was for passengers and freight, but there was nothing developed there.

Q. You could not get it? A. No, sir.

Q. What will there be for all that expensive road to do when the coal business gives out? A. Nothing at all, unless they operated it from Pocono Lake down for the ice business.

Q. Alone? A. Yes. That would be twenty-six or twenty-seven miles west of Stroudsburg.

Q. Do you know whether the competition of these artificial ice concerns with natural ice and the argument in favor of pure hygienic artificial ice as against natural ice that they claim has typhoid germs in it—do you know how all that is working out in the ice business, or don't you know about that? A. I couldn't say any more than my own private opinion, but I would prefer the natural ice. I have used both of them.

Q. You think the natural ice business will hold its own a while yet? A. I certainly do.

Q. So we might expect that Pocono ice business to develop some? A. Yes. But I want to say that that all depends on weather conditions. There is only about half a crop there at the present time. Those ice houses

are only about half full. We have only had about half a haul from there this season.

Q. You won't have a good ice business this Summer? A. No; very poor indeed.

Q. Is there a good lake up there from which to produce this ice? A. Very excellent ice. All it wants is the weather to freeze it.

Q. There are no conditions in the way of the ice business, if they would only have cold weather? A. Yes.

Q. But that is about the only business you say for all this expensive part west of Stroudsburg? A. There are no towns along that line at all.

Q. Is there any fertile farming land in there which may develop any business? A. No; there is no farming land there.

Q. Do you know about what the life of the mines that the Susquehanna reaches is figured to be, about how long it will be before these mines are exhausted like the Miners has been and the Ridgewood is being? A. I do not know more than from public sentiment, what I have heard, talk among men.

Q. In this kind of business? A. In that kind of business; when I am in that vicinity or when I have been there. "What are we going to do when the mines play out?" The general sentiment is that a good many of them will live probably twenty years.

Q. Some of them will play out quicker? A. Oh, yes. We didn't have a ton of coal from Katydid last month. I believe that is due to it being exhausted.

Q. The coal being exhausted? A. I believe so, yes.

Q. Miners is gone? A. Miners is gone, and Ridgewood will soon be gone from what I understand.

Q. Is local freight business expensive to do? A. Yes, it is.

Q. Can you compare it at all with this coal business, as to which is the more expensive, or are they too unlike to be compared? A. I do not think there is any comparison of them. The expense of the coal would be in one place and the expense of the freight would be in another.

Q. Either one of them compare with the through freight business, long haul business? A. If we had some good long haul business we could handle it a great deal cheaper. There would be no trouble, only to hook right on and move it and cut loose from it.

Q. That is the business in which there is, as railroad men figure it, the profit, the long haul business? A. I should judge so. I have never handled any.

Q. What is your judgment, without being able to figure it out precisely in dollars and cents, about whether one dollar and sixty cents on prepared sizes, and one dollar and forty-five cents on pea, and one dollar and thirty cents on buckwheat, and one dollar and fifteen cents on rice and barley, is a reasonable or unreasonable rate from the mines to your terminals at Edgewater or elsewhere for hauling of coal there and hauling the empty cars back and doing all this switching at both ends? A. I would want to do a great deal of figuring before I would answer such a question as that. In a general way I would think it ought not to be any less.

Q. That would be your judgment without figuring? A. It would.

Q. As a result of your experience? A. As a result of my experience and as the result of our earnings, and as the result of what we have been able to pay in wages. We have never been able to pay on the Susquehanna the wages the other railroads could, and, of course, on account of the expensive cost of operation and the track conditions and the profile.

Q. Do you know anything about whether the coal that came over the New York, Susquehanna and Western all these years was sold for any less, or any more, or any additional from other coal? A. I do not know anything about it any more than if I had never seen it.

Q. All that you had nothing to do with? A. No.

Q. You do not know whether it was sold by the independent companies, if it was produced by them, or whether it was sold by coal companies that the railroads controlled? A. I know nothing about it.

Q. Nor the expense of it? A. No, sir.

Q. Nor the expense of handling on the boats, or anything of that kind? A. You mean what it would cost us at our terminal to unload it in the boats?

Q. No; I do not care anything about what it costs you. I know it costs you money. You do that yourself, don't you? A. Oh, yes, we do that ourselves.

Q. You do not charge the people anything for it? A. No.

Q. You take it at the mines and put it on the boats if they want you to? A. That is right.

Q. Free of expense, except these rates? A. Except the rates to cover it.

Q. You said you hauled some coal for the D., L. & W. in the beginning; that is for the D., L. & W. before the Wilkes-Barre and Eastern was built, brought coal over the mountains to Stroudsburg? A. Three miles above Stroudsburg, Gravel Place.

Q. Three miles west of Stroudsburg to what point? A. Haul it to West End and then gave it back to the D., L. & W. again.

Q. And they hauled it on to their terminal? A. They hauled it to tidewater.

Q. Then the D., L. & W. had a haul of about how many miles at the Western end. A. I think about fifty-five or sixty miles.

Q. Then, you had from Gravel Place to the point where you turned it over to the D., L. & W. again, a haul of how much? A. About one hundred miles.

Q. Then the D., L. & W. had a haul from that point to their terminal of about how many miles? A. About three miles, I should judge.

Q. Do you know how that rate on that coal was divided between the Susquehanna and the D., L. & W.? A. I do not.

Q. Do you know whose coal it was that was being hauled that way? A. No. I was a conductor on the coal train when we first began to run, and I wondered why the D., L. & W. would take coal and deliver it to the Sus-

quehanna Railroad and let them haul it a hundred miles and then take it back again. Why it did not haul it over their own line was something I never saw at all.

Q. That question you never saw, as to why they did it? A. No. The question was debated among the trainmen a good many times.

Q. As to why it was done that way? A. Yes. It was new business for the Susquehanna Railroad.

Q. That business began on the Susquehanna Railway by the D., L. & W. turning its coal over to it at Gravel Place about when? A. As near as I can recollect, in the Fall of 1882.

Q. Was it a small business at first? A. Very small, indeed. I have a few notes here.

Q. Give us an idea of about how small it was? A. This was copied from the Susquehanna Annual Report of 1882, ending December 31st, these being the N. Y. S. & W. Railroad Companies day's transportation of coal on October 25th, 1882, and for the year ending December 31st, 1882, it transported a daily average of seven hundred tons; during January, 1883, the daily average was nine hundred tons; during February, 1883, one thousand tons; during March, eleven hundred and fifty tons; and during April, 1883, twelve hundred tons. "By June or July the output is expected to increase to two thousand tons."

Q. That is the way the business started? A. That is the way the business started.

Q. And, speaking from recollection, refreshed by that report, you would say that was a correct description of the business at that time? A. I would say so, yes. We used to go to Gravel Place and wait there sometimes twenty-four hours for another train.

Q. That business consisted entirely in coal brought to Gravel Place by the D., L. & W. and there turned over to the Susquehanna? A. That is correct.

By MR. TODD:

Q. How far is Gravel Place from Stroudsburg? A. Three miles west of Stroudsburg. It came to Gravel Place and the Susquehanna Railroad built a yard at Gravel Place.

By JUDGE MOOT:

Q. To manage this coal? A. Yes.

Q. Is it there yet? A. Yes.

Q. Is it used for anything? A. Nothing at all. There is a notation on it of that money spent there.

Q. In investment that probably will be worth nothing to the stockholders again. A. That is right.

Q. How long since that investment has been earning anything for the stockholders, that Gravel Place yard? A. That is since the latter part of 1893.

Q. The latter part of 1893, was that when the Wilkes-Barre and Eastern was opened? A. Yes.

Q. From 1882, when this business commenced from the D., L. & W. down to 1893, when the Wilkes-Barre and Eastern was opened, was the coal business over the Susquehanna all done from the Delaware, Lackawanna and Western down to Gravel Place? A. From that yard,

Q. About how much did that business grow from the two thousand tons a day that they figured on in June, as you have shown us, in 1882, if I remember right, down to 1893? A. In 1883 the average production per month was twenty-seven thousand four hundred and sixty tons, or for the calendar year, three hundred and twenty-nine thousand five hundred and twenty-two tons. In 1884, it handled four hundred and seventy-five thousand three hundred and forty-six tons and the mines worked two hundred and eleven days in that year; in 1885, they handled six hundred and eight thousand and seventy-two tons; in 1886, they handled six hundred and thirty-two thousand and fifty-five tons; in 1887, they handled six hundred and seventy-five thousand seven hundred and twenty tons; in 1888 they handled seven hundred and seven thousand and seventy-two tons; in 1889, they only handled six hundred and fifty thousand six hundred and twenty-one tons, and a notation of very mild weather; in 1890, they handled eight hundred and forty-five thousand three hundred and eighty-two tons, and another notation of very mild weather; in 1891 they handled nine hundred and thirty-two thousand one hundred and twenty-two

tons. I have been unable to find the records for 1892, 1893 and 1894. In 1895 they handled—this is after the Wilkes-Barre Division was opened—one million four hundred and seventy-six thousand one hundred and eighty-seven tons and five hundred-weight; in 1896, they handled a little less, one million four hundred and eight thousand seven hundred tons and four hundred-weight; in 1897 they had a decrease, they handled one million three hundred and fourteen thousand four hundred and thirty-three and one one-hundredths tons; in 1898 they had another decrease, they handled one million three hundred and three thousand eight hundred and forty-three tons; in 1899 they had a good increase, they handled one million seven hundred and seventy-six thousand nine hundred and forty-two and nineteen one-hundredths tons; in 1900 they had a slight decrease, and handled one million three hundred and thirty-eight thousand seven hundred and fourteen and four one-hundredths tons. If I remember right, in 1900 there was a strike or some trouble at the mines; in 1901, they had an increase and handled one million six hundred and thirty-eight thousand six hundred and nine and eleven one-hundredths tons; in 1902, which was the year of the flood and the strike, only eight hundred and forty-six thousand one hundred and seventy-two and two one-hundredths tons; in 1903 they handled one million two hundred and twenty-six thousand seven hundred and twenty-six and nineteen one-hundredths; in 1904, one million fifty-four thousand four hundred and seven one-hunddredths; in 1905, one million one hundred and sixty-seven thousand two hundred and sixty-six and one one-hundredths; in 1906 there was a strike in April and May and they only handled nine hundred and eleven thousand seven hundred and sixty-seven tons; in 1907 they handled one million three hundred and fifty-three thousand three hundred and fifty-five and eight one-hundredths; in 1908 they handled one million one hundred and sixty-six thousand nine hundred and eighty-two and twelve one-hundredths.

Q. This year, without going into figures for this year, the way they are going will they apparently handle more or less than they did last? A. I think they will have an increase. I have one report here, March 29th, coal handled over the W. B. & E., March 29th, 1909, one hundred and ninety-eight cars, seven thousand eight hundred and forty-two and nineteen one-hundredths tons. Corresponding with that in March 1908, one hundred and seventeen cars, four thousand six hundred and sixty-two and seventeen one-hundredths tons, an increase of eighty-one cars and three thousand one hundred and eighty and two one-hundredths tons. That is for March 29th.

Q. That is for a single day. Without going through it generally, having your reports in mind, what would you say as to whether they indicate that there will be an increase this year? A. They indicate an increase.

Q. Going over your figures, I observe a gradual increase, generally speaking, when there was not mild weather or something of that kind, down to the next year after the Erie got control as a stockholder, the year 1899, which seems to have been your biggest year? Is that right? A. That is the largest year we had.

Q. And the year 1898, when the Erie got control that was a large year too? A. Yes, sir.

Q. Were there ever any directions of any kind given in any way, shape or form, either before or after the Erie got control, to restrict the output of any mine or mines in any way, shape or form up there? A. No, sir. There were very rigid orders to hurry the equipment in the mines and move the coal promptly—very rigid orders. They are even so up to the present date.

Q. Can you illustrate? A. Yes, sir. Here is an order issued by myself to our yardmasters on April 7th, 1909. "For the next forty-eight hours, arrange to give the amount of empty coal cars to the anthracite mines preference over ordinary freight and other empties."

Q. Is that the first order of that kind ever given? A. Oh, no. That is a common thing.

Q. And has been back how many years? A. Ever since I have been handling coal. Here is another message to the agents and yardmasters. "On account of the shortage of empty coal cars, take up with the consignees at your stations and hurry the unloading of the coal equipment all you possibly can."

Q. If there was any money in coal could you only make it by drawing coal to market? A. That is all.

Q. So that it was to the interest of the railroad to haul as much coal as possible in order to get a profit if there was any in hauling it? A. Their whole efforts were concentrated to that movement in doing that.

Q. And that was so at the time before and after the Erie became the principal stockholder? A. Ever since I have had anything to do with the movement of coal.

Q. Suppose that the Susquehanna had kept the tonnage of the mines you say it lost to the Delaware and Hudson and other companies, and had also gained the tonnage it gained through its Erie connections, about how large a tonnage would it have now? A. I would say almost double.

Q. Almost double what it has? A. I should think so.

Q. Would it have been able to handle so large a tonnage? A. Not with the same track service.

Q. It would have had more than it could have handled? A. Yes.

Q. About how large a tonnage do you think your road could handle with its single track? A. The last year's tonnage is a fair sample of what it can handle.

Q. There is 1899, the first year the Erie had it for a full year apparently. That is the largest tonnage of all? A. That was about all they could handle.

Q. That was about all you could handle on your single track road? A. Yes, sir; single track road.

Q. So, if you had kept the tonnage you had and had gained the tonnage you did by the Erie, you would have had more tonnage than you could have handled? A. More than we could handle with the facilities we have at the present time.

Q. When was it—can you give us the date—that you learned, as you say, through the public press or otherwise that the Delaware and Hudson had bought these mines up there and had taken the tonnage away from the Susquehanna? A. I have a clipping here that I cut, I think, from the Wilkes-Barre Record.

Q. That is under what date? A. The date is not marked, but it is pasted in here in April of 1902.

Q. That shows what, in substance? A. That shows, "D. & H. in control. The D. & H. Company yesterday morning took control of the Pine Ridge"—that is what we called Algonquin and Lower Run collieries at Mill Creek—"which it bought from the Algonquin Coal Company. The company placed D. and H. cars at mines, over the Central Railroad of New Jersey tracks, and surveyors laid out a grade for new tracks to be laid from the mines to the D. and H. tracks. Previously the coal was taken by the New York, Susquehanna and Western Railway."

Q. That is the clipping you speak of? A. That is the clipping.

Q. That is what appeared in the paper? A. Yes, sir. Then I have a notation here, "The last shipment of coal from Lower Run and Algonquin on April 29th, 1902, took the balance of empty cars out of there on the 30th." That is in my own handwriting, that notation.

Q. Down to the time that the Erie got the majority of the stock of the Susquehanna Railroad, did you see anything of the Erie cars in the country at all? A. No more than cars of all railroads passing over the rails of any railroad.

Q. Did you know anything about the Erie and the Delaware and Hudson having some arrangement between them previous to that time by which the Delaware and Hudson seemed to be hauling the Erie cars over its tracks back and forth, or didn't you know about that? A. Yes; I saw Erie cars in the Delaware and Hudson trains, but it was always my understanding that the mines

in that vicinity belonged to the D. and H. Company, and that they merely shipped their output over the Erie Railroad where they delivered it to them. I never had any intimation that the Erie Railroad was interested in bringing coal business from there and carrying D. and H. coal; that was always my impression.

By MR. TODD:

Q. During what period are you speaking of now? A. I am speaking of the period I went into the coal regions, in September, 1894, until the time of the Erie taking charge of our road and making connections with us. We had not any connection or knew nothing about the Erie in any way, shape or manner previous to that time. I never had any idea that the Erie Railroad was down in that territory, other than hauling D. and H. coal, where it was delivered to them at Honesdale. I have ridden over the gravity road of the Delaware and Hudson Railroad to Fairview, gone there on excursions, and I was still under the impression that the D. and H. delivered their output to the Erie Railroad at Honesdale.

By JUDGE MOOT:

Q. The arrangement between the Delaware and Hudson and the Erie you did not know? A. I knew nothing about it

Q. You only saw that they seemed to be working together in some way? A. Oh, yes; I could see that very plainly.

Q. Did you see any evidence that the Erie was working with any other railroad company in that region except the Delaware and Hudson, as to its carrying coal? A. No. I also understood that the D. and H. handled their own trains to Carbondale to transport coal for eastern points out toward Albany.

Q. That it was only, as to the tidewater coal, that you understood that this Delaware and Hudson and Erie arrangement, whatever it was, existed? Is that right? A. That is correct.

Q. As I understand, what it was you did not know?

A. I was not acquainted with it, only what my impression was, which I have stated. I might say there that I was under the impression that a good many of these Erie cars that I saw on the Delaware and Hudson was coal being shipped the northern points for other than tidewater deliveries.

Q. That is the ordinary and usual route by the Delaware and Hudson? A. That would be the direction that would be taken.

Q. The Lehigh and Jersey Central were up in that locality, as you have told us, hauling coal. Did you know anything about a canal, the Morris and Essex Canal ? A. Yes. I know of a Morris and Essex Canal.

Q. It runs from where to where? A. I always understood it ran from Easton, I think, to Jersey City, and then in connection with the Lehigh River they moved their boats to a place called Mauch Chunk, where coal was dumped into them by the Lehigh Valley and the Jersey Central and moved on this canal

Q. Does that canal run to Paterson? A. Oh, yes.

Q. Have you ever had Lehigh Coal from boats on that canal at Paterson yourself? A. Yes. Two or three tons last Fall that I thought I would try, and the dealer carted it from the canal.

Q. The canal, it appears, was incorporated about 1824. Do you know when it was built? A. No. I heard the charter was granted about 1824, but I do not know.

Q. When it was built, you do not know? A. I do not know, no. But I have heard of it ever since I have known anything at all. It runs down from Pompton, and used to compete with us at Pompton with the Pompton Steel Works. The Pompton Steel Works would receive their coal by canal.

Q. Do the Pompton Steel Works use much coal? A. Oh, yes; used a great deal of coal.

Q. What is it, steam sizes they use? A. Steam sizes, yes, sir.

Q. About how many tons do they use? A. I couldn't

say; they have moved from there now. They are not in that neighborhood now.

Q. How long since they moved away ? A. They have been gone about two or three years.

Q. Do you know whether this Morris and Essex Canal is increasing in the amount of coal it hauls to Paterson and other points along the canal or decreasing? A. I think it has decreased.

Q. The New York and Susquehanna—do you feel competition in the canal and the competition that comes from it at Paterson and other points on the canal? A. I do not think there is much competition in that respect now, but there was in former years; but the quality of the Lehigh coal was supposed to be superior to the old coal that we hauled, but we are getting a better class of coal over our line from the Erie breakers than we ever did before, so good that we really can control more trade; and, therefore, there is very little of the Lehigh coal sold. I might say that I do not think there were a thousand tons sold in Paterson last year.

Q. How is it about that coal business? Is it a lower price or is it a better quality that controls the trade, according to your observation? A. Oh, yes; the best quality of coal. If a man has ten loads of coal come to his industry and it is poor coal and he carts out ten loads of ashes, that is not very profitable coal for him, but if he carts out four or five loads of ashes that is the coal he wants. It decreases the cost That has a great deal to do with the coal business.

Q. About how many cars a day at the best would the Susquehanna get over the tracks of the Jersey Central by paying trackage for the right to go over them? A. At the present time?

Q. Yes, at the present time or formerly. A. I would say at the present time, we would average twelve a day, but along in 1894 I would say they averaged sixty-five cars to Laurel Run and Algonquin, and thirty cars on the Everhardt branch from Ridgewood and Miners.

Q. So that the Susquehanna were getting along in 1894 something fr[illegible]nety to one hundred cars a day right over the New Jersey Central tracks? A. No; in 1894, confine it to sixty-five cars, and in 1896, increase it, the output from Ridgewood and Miners. It was not until 1896 that the Susquehanna ran over the Everhardt branch.

Q. You get coal to-day over the tracks of what other railroads besides the New Jersey Central, or don't you get it over the tracks of any other railroad, except the New Jersey Central? A. You mean with our own power?

Q. Yes. A. That is the only track that our car uses—the Jersey Central.

Q. You have told us, without going over it again, about the coal that comes to you over the Erie and Wyoming, and has since the Erie got control of the Susquehanna? A. Yes.

Q. Do you get any coal to-day over the tracks of the Lehigh in any way? A. No; no coal over the Lehigh Valley tracks.

Q. Or the Pennsylvania? A. The Pennsylvania Railroad?

Q. Yes. A. No, sir. Never did.

Q. Did you ever get any coal over the tracks of the Lehigh? A. We did.

Q. That you told us about yesterday? A. You mean with our own power?

Q. Either with your own power or with their power. A. They delivered coal to us.

Q. When did they cease to deliver coal to you? A. They ceased to deliver coal to us at Jenkins' Junction about October, 1897. I will say about December, 1897. The tracks leading to Jermyn mines were not completed when we first operated over the S. C. R. R. branch.

Q. The coal then was received over the Lehigh down to the time that you built your Susquehanna Connecting, as you call it, to reach the same collieries that you formerly got to over the Lehigh? A. Yes, but it was a couple of months after we got into Jermyn Junction be-

fore the tracks were completed, so that we could reach the Jermyn mines.

Q. Do you know what your contract called for the Lehigh receiving for bringing that coal to you, what you had to pay them? A. There is just a notation here. This must have been made after the Lehigh Valley contract was annulled. It is dated October 27th, 1897. It says, "Jermyn No. 1 and Jermyn No. 2 direct by N. Y. S. & W. Railroad. See letter from F. P. Moore to C. V. Ware, dated October 27th, 1897."

Q. That is all you can give us on that? A. That is all my book states.

Q. You cannot tell us what the Lehigh did get for that service to the Susquehanna until the Susquehanna had its own track? A. These reports were given to me after it had been annulled.

Q. Did you say you cannot tell us, then? A. No, sir.

Q. What is there to the way bills for the coal in addition to what you told us yesterday—anything? A. The coal is billed from the mines to the Pennsylvania Coal Company at Stroudsburg and the Hillside Coal and Iron Company at Stroudsburg, and there it is rebilled by the agent to fill the orders as he is instructed.

Q. That is the way it is billed now? A. That is the way it is billed now.

Q. Before the Erie became the principal stockholder in the Susquehanna, that coal, you say, was billed to the agent of the Susquehanna itself at Stroudsburg? A. At Stroudsburg; but there was a period in between those two times that they adopted the plan of billing this coal at the mines direct to the consignees.

Q. At tide? A. At tide, and at the local points, and it caused so much detention and confusion that through my recommendation it was changed back to the old system.

Q. About when do you think that experiment was made of billing it through from the mines to the customer, and about how long did it continue? A. I cannot give you the exact date that they started to bill direct from the mines.

Q. Can you give us the date when they stopped? A. I can give you the date that we resumed. I have a notation here in my own writing: "December 17, 1904. Resumed rebilling coal from Stroudsburg, Pa., instead of billing it direct from the mines." All coal which left the mines after December 16th, 1904, was to be billed to Stroudsburg. There was a period in between previous to this time that I do not really remember, the time, but probably it lasted for three or four years that they tried that, and there was a lot of trouble and detention of cars. A man's coal might be billed at the mines and be delivered a month, or week, or two weeks later to him, whereas by billing direct to Stroudsburg he could order his coal in the morning, and the next day the coal train would come along and deliver it without all that trouble, and I made the recommendation that we return to the former way, and I had an appropriation allowed of $100 a month to do this for additional clerks to do it.

Q. It did take additional clerks to do it, did it? A. Yes, sir. I beg your pardon, $140; one clerk at sixty dollars and two clerks at forty dollars.

Q. If they could have done it the other way they would have saved an expense of how much? A. They would have saved $140 a month expense.

Q. The trouble was there and there was this expense to off-set it? A. It certainly caused a whole lot of trouble. Everything has been done to facilitate the prompt handling of coal and the return of empties to the mines.

Q. How is it about the $50,000 a year paid to the Pennsylvania for running into their station here? Is that a permanent thing, or is it something that is to be discontinued? A. The Erie Railroad is now providing terminal facilities to take care of the Susquehanna Railroad and save that $50,000.

Q. You do not know how soon that is expected to take place? A. In the near future. It is expected within one year at the most. The work is now going on to that effect.

Q. When the Susquehanna ran into the Pennsylvania with all its business, instead of the business it simply takes there now, what did it have to pay the Pennsylvania for handling this other business that it now handles through the Erie terminals or at Edgewater? A. That was determined by the volume of the business, but I always understood that it cost about $80,000 a year.

Q. The entire business of the Susquehanna cost the Susquehanna about $80,000 for terminal facilities in the Pennsylvania? A. For terminal facilities, and that only gave one dock in New York for landing the freight.

Q. Can you give us the rates that the Susquehanna paid the Pennsylvania on its business? A. I have before me renewed contract dated October 12th, 1898.

Q. That is a renewal contract? A. A renewal contract.

Q. What were they paying then? What were the rates then? A. "For trackage between Marion and Jersey City the charge for each loaded car shall be one dollar; the charge for each empty car shall be fifty cents;" that moved the car from Marion to Jersey City, to the water front.

Q. That is you moved it with your own power over their tracks? A. We moved it with our own power over their tracks. If that car wished to go across the river, the charge for each loaded car would be two dollars, and the charge for the return of the empty car would be one dollar. The charge for each passenger from Marion to Jersey City, the passenger business, "a prorate of three miles shall be allowed the party of the first part, regardless of the distance traveled on the lines of the party of the second part. The said prorate to net the party of the first part a minimum of two and a half cents per passenger between Marion and Jersey City." Then they were to charge for each passenger across the ferries two cents additional.

Q. Then the short of all that is, that the Pennsylvania got at least two and a half cents for every passenger that came over its lines from Marion, and they got at least

four and a half cents for every passenger that came over its line and went on its ferry boats? A. And landed in New York. Then we also paid $160 at the terminal in Jersey City for the ticket and baggage agents at that point. We paid ten dollars a day for a switching engine and crew, and we paid for the service of the switchman $100 per month, "and for coal furnished switch engine at established rates for such coal, and not for the amount used or the period used by the party of the first part. For wharfage facilities, at Pier 16, New York, the charge shall be twenty cents per ton in addition to the cost of cars moved across the river."

Q. That ten dollars a day for switching engine, that was ten dollars a day trackage for running your engine and moving around on their tracks handling freight? A. No; that was for an engine handling passenger cars, pushing them in and out of the depot.

Q. That was the per diem charged by the Pennsylvania for the work of switching your passenger cars in and out of the depot? A. Yes.

Q. It would not take one of their engines the whole time to do that? A. Yes; it would. One crew is assigned to that.

Q. Did you pay the crew besides? A. We paid for the services of the switchman—that is the switchman that threw the switches. That was $100 a month.

Q. What did that ten dollars a day cover? A. That covered the switching engine and the crew that were on it, an engineer, a fireman and a conductor and a brakeman.

Q. Did you get the service of an engine and the entire engine crew for ten dollars a day? A. Yes, sir; and then the services of the switchman were $100 per month.

Q. Wouldn't that cost the Pennsylvania more than ten dollars a day? A. That was a very cheap rate.

Q. I guess there is some other explanation of that. A. That is what it says here.

Q. It says, "Switching engine and crew ten dollars a

day." What I am getting at is, your engineer and your fireman and your two men to throw switches on the Pennsylvania would equal that ten dollars? A. I would say it would.

Q. That would not leave anything for fuel or repairs? A. I suppose they made that rate on account of the exorbitant rate that they charged for passengers going over the ferry, and considered that covered it, coming in on their tracks. I think that was just to pay the labor of this crew. That is the way I take it. They felt that they were recompensed by the other charges. Because there is a whole lot of money in that twenty cents a ton for all freight handled at Pier 16, and two dollars for a loaded car and a dollar a car for an empty back again, and then a dollar for a loaded car from Marion to Jersey City and fifty cents for an empty back there.

Q. You think this ten dollars a day is the engine and crew —— A. That is merely to cover the expense of the labor.

At 1.15 P. M., a recess was taken until 2.15 P. M.

2.15 P. M. M. E. Johns resumed.

By JUDGE MOOT:

Q. From your records can you tell us whether the New York, Susquehanna and Western, or its predecessors, started out with a large subscribed capital or whether it started out in a small way? A. The origin of the railroad?

Q. Yes. A. I have a book here that was the property of C. A. Wortendyke, President of the New Jersey and Western Railroad Company. The first page is dated 1869, January 11th, and is a list of the subscribers subscribing for ten per cent. subscription of the capital stock, and it gives the names and amounts.

Q. There seem to be several hundred of those subscriptions? A. Yes, sir.

Q. And they aggregate how much? A. As far as I have gone, to page forty-four, they amount to $21,086.66.

Q. As footed? A. As footed.

(The Government objects to this line of testimony. The facts throw no light on any issue in the case.)

Q. The largest subscriptions apparently are what ones? A. From D. W. Wortendyke and Isaac Damarest.

Q. Those are subscriptions of how much? A. One dated May 15th, 1869, for $2100; one the same date, for $7350.

Q. Those are Wortendyke's, are they? A. Those are Wortendyke's. Three from Isaac Demarest, dated the same date, $1050, $2100 and $7350.

Q. A large portion of these subscriptions are apparently subscriptions from ten to fifty dollars? A. That is correct. Ten, twenty, forty, fifty.

Q. Outside of the Erie Railway Company, do you know of any large stockholders in the New York, Susquehanna and Western? I do not know of any.

Q. Suppose the court should hold that the Erie stockholding was all wrong, and that this Susquehanna should be cut loose from the Erie by injunction or otherwise, so that it would have to stand alone on its own footing, what would the effect of that be, in the first place, on the shippers and customers of the Susquehanna? A. It would deprive them of a great many privileges, and it would mean that the Susquehanna Railroad could not stand alone, it would have to be taken over by some strong railroad.

Q. Why? A. Because it would not be able to finance the conditions of the road.

Q. What coal business would it have left, for instance? A. I can't see any coal business it would have left except the Jermyn mines and the Ridgewood.

Q. And in the aggregate they have a tonnage of about how much coal a year? A. The tonnage of the Jermyn No. 1 for ten months of 1908 was two hundred and two thousand three hundred and thirty-eight and nineteen one-hundredths, and that of Jermyn No. 2, thirteen thous-

and nine hundred and seventy-two and six one-hundredths. I haven't the figures on the Ridgewood coal. That would not amount to much, as it is almost a thing of the past.

Q. Would that tonnage be sufficient to maintain the railway west of Stroudsburg? A. It would not.

Q. What additional facilities or advantages would the shippers or travelers over the Susquehanna get if it was cut loose from the Erie? A. That would all depend on where there terminal is made. If a strong road like the Pennsylvania took them, they could take care of them, or if a road like the D. and H. were to take them over they would have to provide facilities, make improvements at Edgewater, if they decided to handle the harbor business from there, their freight business.

Q. It might be practicable for either of those roads to take it over? A. I think they would be the only two roads that I know of, if it would develop that somebody would have to take it.

Q. These are the only two that you can see? A. Yes, sir.

Q. Whether it would be practicable for them or not would depend on the facts in connection with their business that you do not know? A. Yes, sir.

Q. Can you see any practical gain either to the shippers or anybody else if the Lehigh or the Central Railroad of New Jersey should take it over? A. I do not see as they would have any advantage at all, no use for it.

Q. Either of them? A. No, sir.

Q. Aside from these terminal facilities that the Erie and the Susquehanna exchange with each other, and aside from the fact that the passengers over the Susquehanna, as I understand, get tickets in some places that are good over the Erie too, what has the Erie done for the Susquehanna since the Susquehanna was controlled by the Erie? A. It has given the Susquehanna Railroad a large coal tonnage; it has helped the Susquehanna to develop the ice business by its New York Tunnels; it

has given it a coal tonnage over the Greenwood Lake Railroad, which it did not enjoy before; it has developed its passenger business by making tickets good over either road from Paterson or Hackensack; it expects to take the Susquehanna Railroad in its new terminal and reduce the cost of its terminal charges; it has furnished locomotives and coaches to the Susquehanna Railroad to enable them to handle their passenger business; it has also furnished them coal cars to enable them to handle their coal business.

Q. At times of congestion do you mean? A. At all times. The business outgrew the equipment of the Susquehanna Railroad.

Q. In what way have the shippers and customers of the Susquehanna been made to pay anything extra for the extra facilities they have thus obtained? A. I do not know as they have been made to pay any extra charges. As I understand it, the rates remained the same.

Q. You do not know what the arrangement between the Erie and the Susquehanna is as to how the accounts are kept or how much the Erie charges the Susquehanna and the Susquehanna the Erie for interchange business? A. I do not know, but I understand it is a great deal less than the Pennsylvania charge.

Q. In other words, the Susquehanna is the gainer by the change from a financial point of view? A. It is, from my point of view. I consider it is the gainer.

Q. Have the ordinary shippers or passengers gained anything by this interchange between the two railways? A. The passengers have gained a great advantage.

Q. In what way? A. By having both routes and an increased number of trains at different hours, which they would not have had if they had been confined to the Erie. It often occurs that a New Jersey and New York train will break down near Hackensack, and the main line Erie will break down, and the passengers have the privilege of coming over and reaching New York by the Susquehanna Railroad. It happened a number of times.

Q. In ordinary weather or storms or what? A. Stormy weather. In ordinary weather, if there happens to be a breakdown.

Q. On an engine? A. Of an engine. I know at Hackensack the other morning a New Jersey and New York engine blew out its cylinder head and the passengers all flocked over on the Susquehanna Railroad.

Q. The tickets are good on the Susquehanna? A. The tickets are good from Hackensack, yes. At another time a New Jersey and New York engine broke down and the passengers from west of Hackensack came over and were able to reach New York via our line.

Q. The New Jersey and New York is operated by the Erie? A. By the Erie. I understand it is. It runs into the Erie Terminal. Another advantage that the Erie has brought with the taking over of the Susquehanna is to have established the Wells-Fargo Express instead of the National Express, which has increased its earnings in the express business.

Q. How about through rates on other railway lines? A. I believe that it has been able to afford the shippers on the Susquehanna the benefit of through rates, that they were deprived of before.

Q. That is an advantage to the shipper? A. Oh, yes; a great advantage.

Q. Cuts down his expense of doing business by cutting down his rates? A. I should judge so.

Q. How about the commuter business of the Susquehanna? A. The commuter business is something that has increased wonderfully. When I was appointed superintendent—or, in fact, I will say when I was yard master at Paterson—the majority of the passenger trains were three and four cars in a train, and since I have become superintendent some of our trains have increased in size to ten coaches. We have been able to place additional service, which greatly accommodates the people from Paterson and points west of Paterson for holiday service, Saturday service, and returning Sunday night service. The 1st of May,

1882, the Susquehanna Railroad made a venture to build a spur down into the city of Paterson, but they did not run their through trains over there, only Train 2 in the morning. That was a two or three car train, and I was the yard master and conductor at Paterson, and that was 5.35 in the morning, and there was no track to Paterson City, and that was merely done to regulate my hours, and all other trains were connected with by using an engine and combined car so that we could compete with the Erie Railroad with that service; a passenger, if he wanted to go to New York over our line from Paterson City, would be compelled to take this coach and leave it at Paterson (Broadway) and walk to the main line train.

Q. And often in stormy weather? A. No matter what the weather was. Later on they ran their trains down into Paterson City. As to the increase at that time I am unable to say, but up to 1901 there were but ninety-seven commuters from Paterson City for New York via the Susquehanna Railroad On the first day of July, 1901, the Erie issued an order that commutation tickets reading, "New York, Susquehanna & Western Railroad" would be good and honored over the Erie Railroad, but that Erie commutation tickets would not be good on the New York, Susquehanna and Western.

Q. Do you know why that was made? A. I should judge it was made as a trial to see what the result would be.

Q. Why were not the Susquehanna tickets good over the Erie? Was the congestion on the Erie or the Susquehanna, or what was it? A. No. The Susquehanna tickets were made good on the Erie, but the Erie not good on the Susquehanna. It developed that the New York commuters were as follows: During the year 1901, January, ninety-seven; February, ninety-one; March, ninety-three; April, one hundred and thirteen; May, one hundred and five; June, two hundred and seventy; July, two hundred and fifty-seven; August, two hundred and eighty; September, three hundred and five; October, four hundred and fifty-five;

November, four hundred and seventy-one; December, five hundred and eight. The total sale of tickets for January, 1901, at Paterson City was $3,090.98. The total sale of tickets at Paterson City for December, 1901, was $7,510.90.

Q. That shows the increase? A. Yes, sir. All during the year 1902 the average number of commuters for New York averaged a little over five hundred.

Q. How is it now? A. The increase in passenger business from Paterson City in 1902 was $28,079.21. The tickets were made good over both roads on April 15, 1903, and continued to be used over either road.

Q. Did that show any effect on business? A. In 1903 the lowest number of commuters from Paterson City averaged about three hundred and fifty. At Paterson (Broadway), or one mile from the Erie Railroad, the business has developed there regardless of the Erie on account of the increased population. The year's receipts from July, 1898, to June, 1899, inclusive ——

Q. That is for a full fiscal year? A. Yes. $24,674.82.

Q. That is in 1898? A. From 1898 to 1899. For the year's receipts from December, 1907, to November, 1908 ——

Q. A full year? A. Twelve months, yes, sir. $65,593.44, which shows an increase in ten years from the outskirts of Paterson of $40,918.62.

Q. Without going over the figures, is that increase one that has been pretty gradual and pretty constant right along up? A. I should judge so.

Q. Your figures are there before you. Just run your eye over them without giving any details. A. Yes. In February of this year we had at Paterson (Broadway) four hundred and forty-nine New York commuters.

Q. Just at that one point in Paterson? A. At that one point. And in January, the month previous, four hundred and forty. It increased nine in one month.

Q. What do you say about the competition between the Erie and the Susquehanna at Paterson previous to the time that the Erie acquired a majority of the stock

of the Susquehanna, as to whether there was much competition or not? A. There certainly was, to a certain extent.

Q. Can you give us any idea of what extent or what the nature and character of it was, or what kind of business they received? A. The Susquehanna tried to get everything they could.

Q. In what way? A. That is, to handle it and give good service.

Q. Did they try to get it by cutting rates? A. Oh, no. I do not think they ever cut any rates. I do not know that they ever solicited anything more than what came to them. I never heard of it. I do not think there was anybody that was paid to solicit it. As far as the passenger business was concerned there, we did not do a New York business when we first went into Paterson City on account of our trains—the mileage was longer and the time was longer. I have known of people to go from the east side down to the Erie on account of the shorter time, or possibly their location in New York.

Q. Were the Erie cars and facilities also superior to the Susquehanna's? A. Oh, yes. They had all their trains equipped with air brakes, and the Susquehanna had some trains and some trains they did not. I was on a train between 1880 and 1882 that we used the hand brakes exclusively. As far as the freight was concerned, I remember there was a firm there by the name of Lafray & Herman, in the wholesale grocery business. They shipped solid cars of groceries, and they had connections on the Erie Railroad, and they reshipped a great many of those out to small points on our line. They stabled right in the immediate vicinity of our freight house. They insisted on the men that they bought goods of shipping small package freight that they did not ship by Larrie's Express and Fuller's Express by the Susquehanna Railroad. Because their teams would start out in the morning, and they had to pass directly by the Susquehanna freight house, and they would take their package stuff, and take it direct to their warehouse, whereas if it came

by the Erie they would have to drive three-quarters of a mile probably away to get that. But there was not much competition in New York package freight between the Susquehanna and Erie, because there were two express companies doing business in Paterson, Larrie's Express and Fuller's Express, and I think the freight per hundred was probably four cents more by the express company, and they called for it in New York and delivered it at their door in Paterson, whereas if it was shipped by the railroad companies it would call for their own truck service in Paterson and to be delivered by the consignor at New York. Then, again, the Susquehanna Railroad had only Pier 16 in New York, and that would influence the shippers into Paterson, whether they were nearer the Erie terminals. The Erie had several terminals. They had Brooklyn Terminal, and several terminals around the harbor of New York. My personal experience right in that vicinity, handling that business, I found that it was a detriment to the Susquehanna Railroad.

Q. Speaking from the illustration you use, and from what you have said, what do you say as to whether it is or not true that, generally speaking, the Susquehanna patronage in Paterson and the Erie patronage in Paterson were each local to the road that was patronized? A. I would say that the Erie being an old established road in Paterson had a great many track connections to the industries there and wholesale establishments, and Nelson Morris & Co.'s meat business, where nothing of that sort is located on the Susquehanna Railroad. Nelson Morris & Co. bring all their meat in over the Erie Railroad. They turn around and cart it over to our freight house and ship it to our local stations. We handle piles and piles of meat by our railroad which comes to us from Paterson; and we handle a great deal of beer. Hinchcliffe & Brawn Brothers ship the beer from Paterson to the local towns on our railroad. That is the majority of the business at the present time. I think the business at Paterson is handled about on the

same lines. The east side of Paterson has built up so that there are track connections with a great many newly located industries—in fact, we have just landed a lumber firm on the east side of Paterson, Dilston Brothers, who were formerly located on the D., L. & W. tracks, and were very anxious to locate on our tracks.

Q. By locating on the Susquehanna? A. On the Susquehanna tracks. They were very anxious—so anxious that their lease was to run out the 1st of May, and they even took the chances of asking me to let them ship their stuff in and let them unload it on the ground and then they could arrange for trackage facilities, for track connections. All of the business on the east side of the town has been located there through the increased population. At Paterson City our delivery tracks are very small, possibly the capacity of fifteen cars.

Q. Public delivery tracks? A. Public delivery. They are not paved. We never spent any money down there to pave them, and in muddy weather, wet weather, bad weather, snowy weather, there is a disadvantage there as to the hauling, whereas the Erie delivery tracks are all paved and in excellent shape. We have never spent any money there, because the public delivery is a small business. Where we have room for fifteen cars, probably half of that space is occupied daily. I might say that there is fifty per cent. of the tracks standing idle daily. That would give the people, if they desired track in there, a chance to use those tracks if they so desired, and that condition has prevailed.

Q. Is it a fact, summing up all you have been telling me, to say that this Paterson business is very largely divided between the Erie and the Susquehanna, according to location? A. From my observation, I would state that that is the true fact.

Q. Was it so in 1898, when the Erie got control of the Susquehanna? A. I should say that those conditions prevailed all the way through.

Q. From beginning to end? A. Yes, sir.

Q. A man will take one road or the other, according to which is the most convenient? A. He certainly will.

Q. Or which will give him the best service? A. He certainly will.

Q. And when he comes to shipping his freight, again he uses that road most convenient or which gives him the better service? A. The shipping of freight from Paterson was mainly what went out of there to supply the dealers along the rails of the Susquehanna Railroad. The shipping to a competitive point, you might say, where the Erie went, did not amount to anything. I know that from observation. I was right there on the ground and handled the business and had all the advantage to see it, and I speak this from what I have seen. I give you these facts. Of course, if we could get any business before the Erie took us—if we could get any business from the Erie—certainly we would take it. I was a brakeman on the way train that ran from West End to Middletown, and the package freight that came from Pier 16 was put on our way train that left West End at five o'clock in the morning, and we didn't get to Middletown until five o'clock at night and the Erie were able to give a platform delivery at Middletown at seven o'clock in the morning on the same day that we would reach there at five at night, and then we were on the outskirts of the town and the Erie was towards the center of the town; and most of our freight that we took into Middletown was freight that went by the Ontario and Western. The Ontario and Western, right directly after that was built into New York, ran over the West Shore tracks, and then they were competitors of the Erie Railroad, and they were twenty-two miles longer. The Ontario was built to compete with it because their track was right in the town the same as the Erie was. We went in there at night with what we had. Our freight out of there in the morning would be freight that had come down on the Ontario and Western or down on the Erie from some western points and were for local points along the line—say a car of feed for a man that had a lot of cows and was in the milk business, and that was the only available route to bring that feed in there; things

that were at Middletown to be delivered along our line. That was the main part of the business. There was no through business to Middletown. I do not suppose we could think of competing. The same with the passenger business. I was a brakeman on a passenger train when we endeavored to run a passenger train from Middletown, and we used to stand there by the Main Street depot and wait for the Ontario and Western to come in, and the Erie would stop there probably thirty minutes at the Main Street Station, a small station—it was not their main station, but they would make a special stop there, and the Ontario and Western and Mountain tickets were good over either railroad, and we would stand there and call out to the passengers, "Train for New York," and some passengers that were not acquainted with it would take the train, but they would afterwards see the bulk of the passengers passing over to the Erie track, and they would take their bags and get out. I think we left there about between five and five thirty—around there—and reached New York about nine-five—Jersey City about nine-five. We had hand brakes and the Erie gave them a fast run, and I think they reached Jersey City about seven thirty, so that if we gathered in two or three fellows they were sorry they took it. That is just a fact. The road was used principally by passengers that went from Middletown to points that could only be reached by that railroad, and picked up en route, and the travel didn't pay and the train was taken off.

Q. The train was actually taken off? A. Yes; and the coaches attached to the rear end of a milk train later on.

Q. About how long did the Susquehanna try that experiment? A. I think it was under the Midland Railroad of New Jersey when the trial was made, and when the New York, Susquehanna and Western Company took it I think it just cut it right out, reduced the expenses.

Q. That was about when? A. The new company took over the road on January 15th, 1881. I think it was somewhere around there.

Q. That would be your best recollection? A. My best recollection. I know I had worked myself up to be a conductor then, and one of the conductors was taken sick and went to Hot Springs, and I took the place of the other man on that run, and I know that the coach and the mail and baggage car was attached to the milk train at that time.

Q. That milk business was purely a local business, was it not? A. We started out at Middletown with an empty car and commenced to gather up as we went along the line. I do not think we even moved one can of milk from Middletown.

Q. In this competitive business, for instance, did the Susquehanna ever have any freight or passengers to speak of going from Paterson to Middletown or from Paterson to Hackensack or from Middletown to Hackensack, or from any of those common points on the two roads? A. They had passengers from Paterson to Hackensack. That was the county seat there, the court, and the passengers used to come down on the Erie and transfer to our road and go to Hackensack and come back at night and go back on the Erie. I know one judge that lived at Ridgewood did.

Q. Did the Erie reach Hackensack? A. No.

Q. Take Passaic and Paterson and Middletown. A. There is no passenger business in Passaic for this company.

Q. For the Susquehanna? A. No. They tried it and abandoned it.

Q. How long ago did they abandon trying passenger business in Passaic? A. I do not know as I can remember that. I might have some memorandum. (Referring to book.) I was a conductor during those years, and I was on all these different trains. I was the kind of a fellow that was put around on this train and that train and every other old train, and I had more of a general knowledge there than a man that was just assigned to one particular train and did not run any other train. I couldn't

tell you when they stopped the passenger service in Passaic, but it must be at least ten years ago. I have here the Passaic earnings for the calendar year of 1897: Freight forwarded, $9741.58; 1907, ten years, it increased to $18,668.71. These figures do not include revenue on manifested coal. An estimate of the coal handled, would say our company's revenue would be about $150,000 per year at the present time, and it was about half that amount in 1897. The conditions at Passaic are these: We have just landed a new concern on the Passaic branch, and we built their sidings for them to an extent that it cost them almost $17,000 to put in the sidings alone to their new plant, and that has been the case with most all the places on the Passaic branch; industries have come there and located on that branch, away from the center of the city, and practically have nothing in there but these new industries that have located along the line and have track connections.

Q. Does this answer that you made about Paterson, to the effect that in Paterson it was these local conditions and considerations that determined whether the passenger went by the Erie or whether he went by the Susquehanna, indicate competition between them? A. I will put myself in the position of a passenger. If I was to take a train at Paterson City for New York I would select the shortest route and the quickest route. I certainly would not take a train that would take me fifteen or twenty minutes longer, unless I was going out on the Pennsylvania Railroad down to the seashore and had my baggage. I would certainly take the Susquehanna Railroad at that point and enter the Pennsylvania Station and save the expense of the transfer of the baggage. That would appeal to me as the route. But if I were situated so that I could use the Erie Railroad, I should have done it for the quicker route. That is all that would influence me. If the Susquehanna Railroad had been as short and had as good time, I would have taken the Susquehanna Railroad on account of there not being any tunnel.

(The Government objects to all this evidence. What this witness would have done is not the question in issue here.)

Q. Observing the conditions as you did down to 1898, when the Erie acquired the bulk of the stock of the Susquehanna, what do you say as to whether at Middletown, Hawthorne, Paterson ——. A. Hawthorne was not in it at all.

Q. Hawthorne did not have enough business to speak about? A. Nothing but a connecting siding there for what would originate on our road and go to points on the Erie Railroad, or *vice versa.*

Q. I will take just Middletown, Paterson and Passaic. They are the three common points on the Erie and Susquehanna, are they not? A. Yes, sir.

Q. What do you say, seeing the business as you did down to the time that the Erie acquired the majority of the stock of the Susquehanna, as to whether the Susquehanna down to that time had been able to acquire anything more than what you might call local freight and passenger business in those respective places that were naturally tributary to it? A. I would not make a statement of anything since 1894 to 1898, as I was in the Wilkes-Barre vicinity at that time. My statement would have to be while I was on the ground previous to September, 1894.

Q. Take it from 1880? A. I would say 1882, when the Susquehanna Railroad first built a connection down into the city.

Q. Take it, then, from 1882 down to 1894, and the years during which you are familiar, Middletown, Paterson and Passaic, the three common points, what do you say, as a matter of fact, as to whether the Susquehanna had drawn any business from the Erie by competition where that business could go just as well by one route as the other? A. I would say that you cut Middletown and Passaic out of it entirely. There was no chance at all.

Q. For the Susquehanna you mean? A. For the Sus-

quehanna, yes, to have any competition there at all. But at Paterson there certainly was competition. There certainly was competition. As to what effect it had I am unable to say that, but from my own personal observation, the strongest efforts that could be made would have no bearing on the case as to the very large increase in earnings. There certainly was competition there; it can't be said there wasn't.

Q. Can you give us in any way any idea of how much there was there at Paterson during those years, how much competition there was, or what proportion of the business? A. I couldn't say. Another thing that would influence people: If they bought material that originated on the Pennsylvania Railroad or connections with the Pennsylvania Railroad, it would naturally come via West End on the track connection with the Susquehanna Railroad and come to Paterson over the Susquehanna Railroad. That might be an advantage.

Q. Do you think of any other facts bearing on the competition between the Erie and the Susquehanna down to 1898 at Paterson? A. I think I have stated everything that I am able to tell you.

Q. Which of the two roads do you say down to that time—you have told us about the passenger business and you have told us about the freight business—what is your own judgment as to which of the two roads had the inside track, so to speak, for their business? A. Oh, the Erie Railroad.

Q. Both as to passengers and freight? A. You might as well make a comparison of Wanamaker's Department Store here and some small little dry goods store a mile over on the west side of New York city. That would be the comparison with the business of the two railroads.

Q. The little store might feel Wanamaker's a good deal, but Wanamaker's wouldn't feel the little store much? A. That is as near as I can express it.

Q. Have you got anything that will show what the extent is to which the business on the Susquehanna is now increasing? A. The business for the last two months has shown a steady increase.

Q. Where is that statement that you had about the coal tonnage up there in those coal mines? This is the statement that you have been using for reference to refresh your recollection about the tonnage from the various mines? A. That is not the statement that I had yesterday, but there is a copy here just exactly the same that I checked. Perhaps you would like to have that?

Q. This is a *fac-simile* of that, is it not? A. I believe it is, yes, sir.

Q. Only it is lined? A. Yes, sir.

Q. So it is easier to print? A. Yes, sir. The other one was not lined and was hard to follow. I may have made a mistake in following across the other in giving my testimony.

Q. If that is so, this will correct it when it is examined. A. Yes, sir; that will correct it. It is very difficult to trace across that sheet without it being lined.

Q. Is this a correct statement of the tonnage year by year up there, according to your judgment and knowledge and recollection? A. As far as I know.

Q. Do you know whether it gives all the tonnage that was being handled from 1895 to 1908 by the Susquehanna? A. Yes, sir; it is supposed to give all the tonnage.

Q. Are there any other mines, as far as you recollect, that the Susquehanna was handling that do not appear here? A. Yes. There is one other there, Ridgewood, a private corporation, that is in a position to ship over the D. & H. or the Susquehanna, just as it sees fit.

Q. That is not on here. A. That is not on there. I did not see it. Its tonnage is very small, anyhow. It does not amount to anything.

(Statement referred to by the witness marked "Defendant's Exhibit No. 1, 4/9/09, C. F. P.")

Judge Moot offers in evidence Defendant's Exhibit No. 1, being a statement of the tonnage shipped over the New York, Susquehanna and Western Railroad Company from 1895 to November, 1908, from the different collieries named in the statement.

Q. These statements, dated the week ending March 31st, 1909, and month ending March 31st, 1909, are statements of the estimated earnings based on what you were actually doing from daily or weekly reports? A. They are.

Q. They compare what you did a year ago with what you did this year? A. Yes, sir.

Q. And show the increase and in what different items the increase took place? A. They do.

Q. I will use the monthly one because that covers everything and that will give a better idea. A. Yes; that is a better idea than the other, as the total amount is included in the monthly report.

(Statement marked "Defendant's Exhibit No. 2, 4/9/09, C. F. P.")

Judge Moot offers in evidence statement, being the railroad's statement of earnings for the month of March, 1909, as compared with the month of March, 1908.

THE WITNESS: That is estimated earnings.

Q. When you say "estimated earnings" you mean by that, that —— A. These are the actual figures we have at the present time. There may be more.

Q. There may be some changes and corrections? A. Yes, sir.

Q. That would increase rather than decrease the earnings? A. That would increase rather than decrease.

Q. So that, as compared with last year, this statement is not too favorable to this year? A. As near as I can estimate it at the present time.

Q. All that there is estimated about this statement is the expenses, the fixed charges? A. The earnings, the actual earnings. Those figures for 1909 are what we actually earned, as near as I can estimate it. I would state that for the month of February it shows almost the same ratio of increase, and, of course, it cost more to operate with that increase to handle that increased business.

Q. That is not what is bothering me. What I am getting at is as to what extent these figures are actual figures and not mere estimates? A. They are the reports that have come in from the earnings of the different stations.

Q. They are based on the actual reports that have come into you from the earnings of the different stations? A. From the different stations.

Q. And the actual report of your company will be the same, save for corrections? A. For corrections, yes, sir.

Q. It is estimated only in the sense, then, that it is still subject to correction? A. Still subject to correction, yes, sir.

JUDGE MOOT: I offer the statement in evidence.

Q. You cannot tell me about that anthracite coal company that was acquired up there by some of the stockholders of the Susquehanna before they started this coal business? You do not know anything about that? A. Previous to the Susquehanna Railroad going in the coal business?

Q. Yes. A. No; I do not know anything about that.

Q. Does your coal ever leak or is it ever stolen? A. Yes; a good many claims for leakage and coal being stolen.

Q. The railway company is responsible for those, has to make them good? A. Has to pay the claims. There is no protection; it is in an open car.

Cross examination.

By MR. MCREYNOLDS:

Q. When did you first commence to be connected with the railroad business? A. About July, 1876.

Q. In what capacity and with what railroad? A. With the Montclair and Greenwood Lake Railroad.

Q. Was the Erie Railroad then in existence? A. Oh, yes.

Q. With a through line passing through Middletown, Paterson and on to Jersey City? A. That I do not know, where they ran from. I had never ridden over the Erie Railroad when I went to Jersey City and accepted employment with the Montclair and Greenwood Lake Railroad. It left the Pennsylvania station at Jersey City and was in no way connected with the Erie Railroad.

Q. Just make your answers as sharp as you can, and directed to my questions. Was the New York, Susque-

hanna and Western Railroad in existence at that time? A. No, sir.

Q. Was the New Jersey Midland in existence at that time? A. Yes, sir.

Q. In 1874 the New Jersey Midland was in existence? A. In 1876, that I knew of.

Q. Did its lines extend from Middletown to Jersey City? A. Yes, sir.

Q. Did its lines then extend west to the coal regions? A. No, sir.

Q. When did you become connected with the New Jersey Midland, if ever? A. The sixteenth day of July, 1890.

Q. Was it then operated by the old corporation called the New Jersey Midland or by the New York, Susquehanna and Western? A. No; it had changed its name to Midland Railroad of New Jersey, when I went to work for it.

Q. When did it become the New York, Susquehanna and Western? A. On the fifteenth day of July, 1891.

Q. How far west did its lines extend at that time? A. To Middletown, New York, eighty-eight miles.

Q. That was the whole road at that time? A. That was the entire railroad.

Q. When was the line built from the Junction with the Middletown branch over to Stroudsburg? A. Stroudsburg and Gravel Place. That was put in operation in the Fall of 1882.

Q. When was the line built from Stroudsburg up to the anthracite coal regions? A. Its first time table was some time in November, 1893. One train on the time table round trip from Stroudsburg to Wilkes-Barre.

Q. When did they first begin to haul coal from the Lackawanna regions down by way of Stroudsburg and on to New York harbor? A. Do you mean via the D. L. and W.?

Q. No; I mean by the lines of the New York, Susquehanna and Western? A. That was probably about the first part of 1894, when they had a direct line.

Q. Before that time they had gotten coal from the Delaware, Lackawanna and Western at what point? A. At Gravel Place, three miles above Stroudsburg.

Q. And brought it from that point on to tide water? A. No; not to tide water. Within three miles of tide water.

Q. What did they do with it then? A. They gave it back to the D. L. and W.

Q. Were their terminals used at tide water? A. Their terminals were used.

Q. What was the terminus when the road was first constructed from Stroudsburg into the anthracite coal regions? A. Wilkes-Barre.

Q. When was the Susquehanna Connecting Railroad constructed? A. The Susquehanna Connecting branch was opened up to Minooka on November 25th, 1897. Then it was ready to commence operation.

Q. Tell us, so it can be found on the map, where the Susquehanna Connecting road extended. A. It left the main line of the Susquehanna Railroad at a point called Paddy's Land, a point on the main line eleven miles from Wilkes-Barre.

Q. Then it turned off towards what direction? A. Then it turned off in a northeasterly direction and extended through Minooka.

Q. Where is Minooka? A. Minooka is about six miles from Scranton.

Q. East or west? A. South of Scranton.

Q. Did it terminate at Minooka? A. It terminated at Minooka.

Q. Is Minooka still the terminus? A. No, sir; it is not. That is a D. and H. terminus. We used the Greenwood No. 1 and Greenwood No. 2 tracks from a point about one mile east from where the tracks of the Wilkes-Barre and Eastern terminate.

Q. Don't it extend anything beyond that? A. No, sir; that is the end of the tracks.

Q. Is that still the end? A. They do not run there now

at all. Those mines are being operated by the D. and H. Railroad.

Q. What was the object of constructing that road from Stroudsburg to Wikes-Barre? A. To enter the coal fields and handle the coal direct instead of having the D. L. and W. deliver it to the Susquehanna Railroad.

Q. In other words, to get the benefit of the anthracite coal traffic? A. Yes, sir.

Q. That was the purpose of building the line from Stroudsburg? A. It certainly was.

Q. Before you built the connecting line where did you get the coals that were transported over the New York, Susquehanna and Western to tide at New York City? A. We received a portion of it from the Lehigh Valley Railroad at Jenkin's Junction and a portion of it from the Delaware and Hudson at Yatesville. Those points are probably three quarters of a mile apart and distant from Wilkes-Barre about six miles and we received a portion of it by going to the Algonquin and Laurel Run mines with our own power and waiting on those two mines ourselves.

Q. When you got coal from the Delaware and Hudson road, under what terms did you receive it? A. We paid them so much to come there to Yatesville and take the empty cars to the mines and bring back the cars loaded to us at Yatesville.

Q. How much was that charge? A. It amounted to different amounts, to different breakers.

Q. Give us an idea, please, about what it was. Give us the highest and lowest. A. We will take Dolph Breaker. That was twenty-five miles from Yatesville, and the coal had to be handled by the Erie and Wyoming Valley Railroad and the D. and H. Railroad.

Q. Give us what you paid for getting it to Yatesville. A. We paid each one ten cents a ton.

Q. How much did that make altogether? A. Twenty cents.

Q. Other than at Yatesville, what did you pay for

gathering the coals and bringing them in there? A. That would be Butler. I do not find any reference to the cost of trackage here from Butler, but I think it was ten cents a ton, if I remember right.

Q. How far was Butler? A. Probably a mile and a half to two miles. Say two miles.

Q. Those charges, ten cents and twenty cents, you have just given us, cover the gathering of that coal from the mines and bringing it into this point at Yatesville where it was delivered to your road? A. Yes, sir.

Q. In other words, those were the gathering charges? A. That was what they charged us to transport that coal.

Q. Immediately after the New York, Susquehanna and Western was constructed to Wilkes-Barre in 1893 it connected in the coal regions with the Delaware and Hudson tracks and also with the Lehigh Valley tracks? A. That is correct.

Q. From Wilkes-Barre to Carbondale, all the way up that valley, the tracks of the Delaware and Hudson Railroad laid then and now? A. Yes, sir.

Q. So that when your road got to Wilkes-Barre you were in a position to get all the coals that were mined in that valley and reached by the tracks of the Delaware and Hudson Railroad, were you not? A. All of it?

Q. Yes. A. If we could have handled it.

Q. Exactly, if you could have handled it. A. If they saw fit to give it to us.

Q. You were also in position to get all the coals in that valley where the mines were reached by the tracks of the Lehigh Valley Railroad, were you not? A. If they shoved it into us there were tracks there that connected with our rails.

Q. What other railroads in that valley did your rails connect with? A. They connected with the Central Railroad of New Jersey.

Q. Where? A. At Algonquin connection.

Q. You received at that connection certain coals from the Central Railroad of New Jersey, did you not? A. No; we went in and took it ourselves.

Q. So, at that point you were in position to receive coals from all the mines which were located on the tracks of the New Jersey Central in that valley, were you not? A. Yes, sir.

Q. What has been the customary charge in that valley where one road delivers coals to another? A. As I stated, there were two different charges, ten cents for a mile or a mile and a half, and twenty cents for twenty-five miles.

Q. What is the present customary charge in that valley where one road delivers coal in the valley to another? A. That I do not know.

Q. What did you pay the Lehigh Valley for coals they delivered to you at your junction point? A. My book does not show any record of that. I have no knowledge of what they paid.

Q. Why did you build this connecting railroad from the point eleven miles from Wilkes-Barre up to the northwest? Why was that road constructed? A. I understood it was built with the intention of reaching the mines direct with Susquehanna power and crews for coal which had been delivered to the Susquehanna Railroad by the Lehigh Valley and the Delaware and Hudson.

Q. And it did reach the mines, as you intended? A. It did, yes, sir.

Q. Did it cross any other railroad besides the Delaware and Hudson and the Lehigh Valley? A. It crosses the Brownville branch of the Erie and Wyoming Valley Railroad, which was then an abandoned branch.

Q. Was not operated at that time? A. No, sir. The only operation there was a washery, which had been established at its end, and the Susquehanna engines went in there and took that product out near Avoca.

Q. Where did you strike the Erie and Wyoming Valley Railroad? A. That was the only point. It was named Hillside Junction.

Q. Is not Hillside Junction a junction point now? A. It is, but at that time we merely crossed that railroad

and built a track connection so that engines could go in to this old Brookside washery.

Q. Could you have received freight at that time from the Erie and Wyoming Valley Railroad at the point where you crossed? A. We could, but we didn't.

Q. But couldn't you? A. Oh, yes.

Q. Who operated the Erie and Wyoming Valley Railroad at that time? A. As near as I understand, they operated it themselves.

Q. It was owned by the Pennsylvania Coal Company, was it not? A. I believe so.

Q. Where your tracks crossed the Erie and Wyoming Valley Railroad you were in a position to receive all coal shipped at that time by the Pennsylvania Coal Company, were you not? A. We had track connection with them, but we had no facilities.

Q. I understand you did not have enough cars to carry the coal up there, but I am trying to see what you could have done. Did ny coal move from the coal regions at that time, in the latter part of 1897, from the coal mines over the Erie and Wyoming Valley Railroad to Hawley? A. At that time I never had ridden over the Erie and Wyoming Valley, and knew nothing of it.

Q. How did the Pennsylvania Coal Company send out its coals at that time? A. I do not know. I had never ridden over a railroad in that vicinity and knew nothing of the territory. In fact, I was ignorant of my surroundings.

Q. You went up in that territory in 1894, did you not? A. Yes, sir; but I had never ——

Q. But you stayed there until 1898? After I had moved my office to Moosic, then I was more familiar with that section.

Q. I am trying to find out, though, from you whether while you were in the region in 1897 coals moved from the mines in the coal regions were shipped by the Pennsylvania Coal Company over the lines of the Erie and Wyoming Valley Railroad to Hawley? A. I couldn't tell you that.

Q. You do not know how the Pennsylvania Coal Company got its coals out, then? A. I do not. I knew nothing of the Pennsylvania Coal Company or the Erie and Wyoming Valley in any way shape or manner, and had not been familiar with them or come in contact with them.

Q. Where is Hillside Junction? A. Hillside Junction is probably a mile from Moosic—it is about a mile from Moosic and probably two miles from Avoca.

Q. From 1894 to 1897, while you were in the coal regions, did the coal traffic which moved over the lines of the New York, Susquehanna and Western to tide at New York city increase or decrease? A. It increased.

Q. Was the effect of this connecting railroad that was built and put into operation in 1897 to increase the coal traffic over the lines of the New York, Susquehanna and Western? A. Very much.

Q. From 1894 to 1897 did most of the coal moved over the New York, Susquehanna and Western come to tide water at New York, or was it sold at line points? A. The majority of that came to tide water. There were not so many line orders.

Q. So, from 1894 to 1897 or 1898, the great preponderance of coal traffic moving over the New York, Susquehanna and Western came from the coal measures direct to tidewater and was disposed of there? A. Yes, sir; that is correct.

Q. Since that time there has been created quite a large line traffic, which, I understood from you, consumes a great deal of the coal that moves over those rails now? A. That is correct.

Q. Were you aware of the fact in 1894, between that time and 1898, that coals were moving from the Wyoming regions by way of the Erie rails and being sold at tidewater? A. Only as I understood the Delaware and Hudson disposed of their product via the Erie Railroad, which it delivered to them at Honesdale. I was under the impression that that was a traffic arrangement that the Erie handled their coal, and that the D. & H. owned docks at Weehawken.

Q. There never has been much traffic other than between the coal measures and Stroudsburg over the line of the New York, Susquehanna and Western, has there? A. No, sir. Coal business has been the prevailing traffic.

Q. That was the business the road was built to get? A. It certainly was.

Q. Do you know what result upon freight rates followed the construction of the New York, Susquehanna and Western Railroad into the coal measures? A. I do not, no, sir. I never heard it discussed. That was never discussed with me; not handled in my department.

Q. When your road first went in there they took a certain percentage of tidewater prices for those freight rates, did they not? A. I do not know.

Q. You don't know about that? A. No, sir; I do not.

Q. Who would know? A. The man who was general superintendent at that time.

Q. Who was he? A. Mr. C. D. McKelvey, of Paterson, or some of the officials of the road at that time.

Q. Between 1894 and 1898 what roads were carrying coals from the Wyoming regions to tidewater at New York? A. From my observation, as near as I can remember, the Lehigh Valley, the Jersey Central ——

Q. The Delaware, Lackawanna and Western? A. The Delaware, Lackawanna and Western, the New York, Susquehanna and Western.

Q. And the Erie in conjunction with the D. & H.? A. I do not know that any more than it was supposed that the D. & H. shipped their coal via the Erie.

Q. The D. & H. itself had no line to tidewater at New York City, did it? A. That is what I understood. I never knew that the Erie was a competitor itself as a coal shipping railroad in that vicinity.

Q. You knew the D. & H. did not have any tracks to tidewater? A. I supposed the coal that was handled there was the property of the D. & H. Railroad, and they could ship it over whatever railroad they saw fit, over the Jersey Central, the Lehigh Valley, or the Susquehanna.

Q. And they could have given it to you? A. They did give it to us for a short period.

Q. They could have given it to you if you were in a position to take it? A. Yes; that is correct.

Q. You were also in a position to receive all the coal that was mined by the Pennsylvania Coal Company, were you not? A. We could not have handled it. It would have been an impossibility to handle it.

Q. But you were in the position to receive all that you could handle, that they mined, if you had had the cars? A. Had the cars and tracks, yes, sir.

Q. To the full capacity of your line you could have carried all the coals they mined to New York? A. Yes; that is correct.

Q. How did the coals of the Pennsylvania Coal Company come to New York? A. That is something I knew nothing of until I went into Moosic, in that vicinity, and we commenced to receive coal from the Erie and Wyoming Valley, and then we became acquainted with it. Otherwise, before that, I knew nothing of it in any way, shape or manner.

Q. You do not know now? A. Well, of course, I know the location of the country up there a great deal better than I did then, because I have traveled over it, but until that time I had never set my foot on the territory of the Erie and Wyoming Valley Railroad. I had been to Scranton several times.

Q. When you first became acquainted with the affairs of the New York, Susquehanna and Western Railroad, it used entirely the terminals of the Pennsylvania Railroad at Jersey City for its New York business? A. Yes, sir.

Q. Both passenger and freight? A. Yes, sir.

Q. Under an arrangement with them? A. Yes, sir.

Q. Coal and everything else? A. Oh, no; no coal. No coal. In fact, there was no coal business on that railroad at the beginning. There was no coal business at all until 1882, and then we came to West End and got the D., L. & W. Railroad, and came to Hoboken. No coal entered the Pennsylvania Railroad.

Q. After you went right into the coal measures, in 1894,

and began to bring coal to New York harbor, where did you land it? A. At Edgewater.

Q. The New York, Susquehanna and Western acquired terminals at Edgewater, at what time? A. They were constructed sometime in the year 1893, and operations started sometime in the year—the terminal time table of the Edgewater Branch, No. 1, was dated September 11, 1894, so it was about that time that the work had been completed, and the terminal ready for occupancy.

Q. So, beginning in 1894, you began to bring coals in increasing quantities from the Wyoming anthracite region down to Edgewater, and there delivered them into barges? A. Yes. But I want to say right here that I never was in that Edgewater ——

Q. I do not care if you were in there or not, if you knew the facts. A. I never was in there until the year 1904.

Q. How far was it from Wilkes-Barre to Edgewater by the New York, Susquehanna and Western? A. The time-table distance from New York to Wilkes-Barre is one hundred and sixty-five miles, and from Edgewater I suppose it would be about one hundred and sixty.

Q. Is there any other line that is shorter between the Wyoming Valley coal measures and tidewater at New York? A. I think the D., L. & W. is much shorter. I think they are one hundred and fifty-four miles from Scranton.

Q. And you are next? A. That I can't say. I don't know the distance of the Jersey Central or the Lehigh Valley.

Q. After your road was built into the coal regions, you sought to get all the coals to carry that your accommodations would permit you to move? A. That seemed to be the purpose of the company.

Q. And ship the coals over your road, or did your road buy the coals and ship it itself? A. That I cannot say.

Q. You don't know about those details? A. Those details were not even conversed with me. All I was there for was to handle the business.

Q. What do you mean by handling the business? A. Looked after the power and the men.

Q. You had nothing to do with soliciting or procuring business? A. No, sir; nothing at all.

Q. Let us come down to your present occupation at Edgewater. What is your position there? A. I am the division superintendent.

Q. Are you in control of the terminals at Edgewater? A. Yes, sir.

Q. To whom do those terminals belong? A. As far as I know, they belong to the New York, Susquehanna and Western Railroad. That is the same as all the rest of the property along the line I suppose is controlled by the New York, Susquehanna and Western Railroad

Q. So as not to have to come back to it: Ever since the Wilkes-Barre and Eastern Railroad was constructed it has been operated by the New York, Susquehanna and Western Railroad, has it not? A. Yes, sir.

Q. And as one line from the coal measures to tide? A. One line.

Q. About those terminals at Edgewater: How are they operated? They are used, I believe, by both the New York, Susquehanna and Western, and by the Erie? A. They are used by the New York, Susquehanna and Western. Everything that comes in there is New York, Susquehanna and Western traffic.

Q. Don't the Erie send any coal in there? A. Oh, yes. I suppose after that would be turned over to the Susquehanna that it would be called their product, by a traffic arrangement. Of course, it is Erie coal, as I understand your meaning.

Q. Erie trains come into the junction point a few miles inland and taken by the New York, Susquehanna and Western and are unloaded at Edgewater? A. That is correct.

Q. Has the Erie any other coal terminal in New York that is used by it? A. They have a coal terminal at Weehawken.

Q. Which do they use mostly for Erie coal? A. I think that Edgewater is a larger plant, and the Edgewater plant has two docks and the Weehawken plant one dock.

Q. When coals are brought into that terminal, how are they handled when they load them on to barges? Give me a clear idea of it as briefly as you can. A. Each barge comes there for a certain size and quality of coal. They may have three compartments for three different sizes of coal. The barge must be loaded so that it will not tilt, and it must have a portion of one size in one end of it, and a portion of one size in the other end of it, and cars of different sizes of coal are ordered placed on the tracks by numbers, by the coal agent in charge of the dock. He will say to the yardmaster to place it on No. 1 or No. 2, and they are hoisted up on top of the dock and dumped into the barges.

Q. Getting away from that detail of loading barges. A carload of coal comes down the line to the New York, Susquehanna and Western company junction point with the Erie. A. Yes, sir.

Q. And then run down to the dock. Where is it weighed? A. It is weighed at the mines, and it is weighed at the top of the dock, loaded, and the empty car weighed after the coal is unloaded.

Q. How do you ascertain how much coal goes into the barge? A. By the weight of the car. That car is weighed, and then that weight is charged to the boat that it is dumped into.

Q. Don't it run over screens? A. It runs over screens, yes, sir.

Q. Isn't there a great deal of screening left? A. No; there is very small screening from a car of coal in transit that has been moved.

Q. How do you ascertain how much the screenings are and how much goes into the barge? A. I do not know as that can be determined.

Q. Suppose a man wants a thousand tons of coal delivered into a barge, how do you know whether he has got it or not? A. By what is in the car.

Q. Before it is screened? A. That is the weight that is taken, as I understand it.

Q. You charge him, then,—— A. For the carload of coal just as it was weighed at the mines, or as it is weighed on top of the dock—that would be the weight, on top of the dock.

Q. Giving no allowance for the screenings? A. That I could not say.

Q. The storage plant that you speak of at Coalburg, is that on both the Erie and the New York, Susquehanna and Western lines? A. It is on the New York, Susquehanna and Western lines, but directly adjacent to connections with the Erie.

Q. How far from tidewater is that? A. About ten miles.

Q. Do you know about the rates for carrying coal? A. I do not.

Q. Do you know whether the rates for line points are higher than they are to tide from your mines? A. No. I think they are about the same.

Q. Whatever points on your line, then, you deliver coal to, the rates are about the same as they would be from mine to tide? A. I do not know what distance that would extend to. In fact, I should say, I am not conversant with that knowledge.

Q. Has the coal traffic over the New York, Susquehanna and Western rails always been very many times larger than all the other freight traffic combined—I mean since it built into the coal mines? A. Oh, yes; I should think so.

Q. And in 1897, was the coal traffic four times as large as all the other freight traffic combined? A. I haven't the figures for 1897 of the freight traffic. I was up in the coal regions exclusively, and I never came down this way at all.

Q. You have no figures there to show? A. No, sir; nothing but the coal figures. The annual report of the railroad should show what the tonnage of the freight was, and what the tonnage of the coal was. During those years I was exclusively confined to the coal regions and did not come down this way very much.

Q. When were the tracks of the New York, Susquehanna and Western constructed from the Middletown branch over to Stroudsburg? A. They were opened for operation in the Fall of 1882.

Q. Does the New York, Susquehanna and Western at the present time turn over to any other railroad any other coals collected by it in the coal measures? A. You mean other than the Erie?

Q. No, I mean the Erie or any road. A. There is a good deal sent by the Greenwood Lake road, that we bring our train right down, a through connection over that railroad as far as North Newark. I do not recall any other delivery of coals to any other railway.

Q. You do not deliver any coal to the Erie railway at any point in the coal measures? A. We do deliver some Jermyn coal to them at Hillside Junction at times.

Q. When you deliver that coal to the Erie at Hilllside Junction, what does the New York, Susquehanna and Western Railroad get for gathering it and delivering it at that point? A. I do not know. It is a very short haul.

Q. Who was the president of the New York, Susquehanna and Western Railroad in 1897 and 1898? A. I am quite sure that when the railroad was turned over to the Erie that Amos L. Hopkins was president.

Q. Is he still living? A. I don't know. And previous to that Simon Borg.

Q. Who was the vice-president at the time it was turned over to the Erie? A. I think F. P. Moore was the first vice-president under Mr. Hopkins.

Q. Is he living? A. That I don't know. I don't know his whereabouts. I have never seen him since that time.

Q. Does your road get any coal from the Delaware and Hudson at the present time, or has it done so in the last two years? A. To the best of my knowledge I do not think we have any connection with them, or receive any cars from them.

Q. And have not within the last two years? A. No, sir.

Q. Do you know when you ceased to receive coal from them? A. 1901.

Q. Where did you receive that coal from? A. We received coal at Greenwood No. 1 and Greenwood No. 2, and the D. & H. took that coal. I am unable to tell you that, because the Delaware and Hudson delivered us the Dolph coal at Minooka, and then after that the Erie and Wyoming Valley brought this Dolph coal around to Hillside Junction. This sheet still shows we received coal from Dolph, but it does not show which way we received it. But in 1901 we ceased going down towards Minooka to Greenwood No. 1 and Greenwood No. 2, and after 1901 the Delaware and Hudson came in and took that coal. That ended our connection at Minooka with the Delaware and Hudson.

By MR. TODD:

Q. Didn't you testify that the Delaware and Hudson Company shipped some of its own coal by your road? A. That was in 1899.

Q. Where did your road take it? A. At Yatesville.

By MR. MCREYNOLDS:

Q. What did you allow for taking that coal up at the mines and delivering it at Yatesville? A. That I do not know, what the figures were.

Q. Do any roads get to Hillside Junction except the Erie and the New York, Susquehanna and Western? A. That is all.

Re-direct examination.

By JUDGE MOOT:

Q. This gathering charge, does that depend at all on the number of cars that you can haul, whether it is down-grade or up-grade, and distance, and things of that kind? A. What we consider a gathering charge would be to assemble the coal where a road crew would take it and start out as a train crew.

Q. You gave the top of Pocono, where you first get a train-load, about forty-two miles from the mines, on the Susquehanna —— A. It is all picked up in sections before it reaches there and moved in small quantities.

Q. You gave that, as I remember it, yesterday, as a point which you would call a gathering point, because it would be first there that you would get a full train? A. We call that a general gathering point, because we have crews that go from Stroudsburg and run to there, and then we take coal into Stroudsburg, and the other crews generally come from the West End terminal at Pocono Summit. It takes probably three engines in a train to bring the stuff there, and one engine can handle east of there.

Q. You said on account of the extra engines that would be required, and the small number of cars that would be hauled, on account of the cost and so on, that fifty cents a ton would be a reasonable charge for that forty-two miles—in fact you thought that might be an injustice to the company. A. That is a very heavy and expensive operation on that portion of the railroad. It involves a very large expense.

Q. Your judgment still is that fifty cents a ton would be a reasonable charge for that service? A. I think so, on a rough estimate.

Q. Suppose, instead of the gathering consisting in lifting up cars all the way to the top, forty-two miles from the mines, the gathering simply consisted in drawing the loaded cars down grade two or three or four or five or six or eight or ten miles? A. That would be a different operation, that would be a very much cheaper operation.

Q. Relatively, how much cheaper? A. Very much cheaper. From these figures that I gathered here from the D. & H. delivering us coal on a comparatively level track, I should say thirty-five cents a ton cheaper, according to their figures.

Q. You would think there was that difference really in the cost of the two services? A. I am just judging by the D. & H. charging us ten cents a ton to carry the coal on a level piece of track a mile and a half, and in the other instance you are lifting that coal up fourteen hundred feet. That is the comparison of the difference in cost.

Q. Take that Dolph, because there the D. & H. brought you that coal, and you say the Erie and Wyoming charged you ten cents and the D. & H. charged you ten cents, and that is all the way down-grade too? A. Yes. They could haul a very large train—a very large train, over that territory. No grades connected with it. If they would let the cars start from Dolph they would run to Winton Junction without any power. You would want all the braking power you have got to keep them from running away.

Q. So that again would be a comparatively cheap operation as compared with gathering and hauling the coal up the grade? A. Certainly. There would be no grade expense.

Q. This matter of grades and curves is a very vital one? A. It figures very largely in the cost of operation.

Q. That is a very vital one in railroad operation? A. It certainly is.

Q. If you have a railroad being operated in a level section you could get a corresponding difference in the rates? A. If you have a continuous grade you can handle a full train and go right on with it. If you have a broken grade you have to reduce your train as you reach the grades.

Q. Have more engines and men? A. Yes, sir.

Q. It takes you longer to do it besides, on the bad grades? A. Your speed is not very fast.

Q. On these high grades and all that do you get any expense through collisions or wrecks, or anything of that kind, that you don't get where you have easy grades? A. You take a heavy descending grade like we have from Pocono Summit to Stroudsburg we have a good many broken wheels.

Q. Why? A. The brakes are applied for a great many miles, and the wheels become overheated, so that when they come to a level and they release the brakes to let them run over the level the wheels break.

Q. Chill and break? A. Chill and break.

Q. From the sudden contraction? A. The sudden contraction, sudden chill.

Q. How is it on your line as to whether you have very many such breakages on this long grade? A. We have a large number of them.

Q. Does that cause damage, breakage of the wheels? A. Oh, yes; it causes damage to the equipment, damage to the track, and a practical loss of the contents of the car, a mix-up of the coal. We recently had a broken wheel at Tannersville, and three or four cars went down a bank that was probably seventy-five feet high, and we had to cart that coal, all mixed up, up that bank, and load it. Probably almost its whole value to load it. That is the most recent accident, caused by a broken wheel.

Q. That is illustrative of the sort of thing broken wheels bring? A. Yes, sir.

By MR. TODD:

Q. How far did you say it was from Wilkes-Barre to Pocono Summit? A. Forty-two miles. I think that is just exactly the distance. (Referring to paper.) Just exactly forty-two miles from Wilkes-Barre.

C. D. SIMPSON, having been duly sworn, was examined as follows:—

By MAJOR WARREN:

Q. I desire to ask you a question in connection with the proposed New York, Wyoming and Western Railroad. What financial interest, if any, did you have in that projected road? A. I do not think I had any.

Q. I recall that in the articles of association your name appears as a subscriber to the capital stock, and I have not the article with me, but, my impression is, the number of shares for which you subscribed was two hundred and fifty. Whether I am right or wrong, I am quite clear that you are in those articles for a certain number of shares. Were they a subscription for yourself as a proposed stockholder of that company? A. No. That subscription was for another party.

Q. Was it for either Simpson or Watkins or Simpson and Watkins as a firm? A. No, sir.

Q. So that you never were a subscriber as a member of the firm of Simpson and Watkins to that proposed New York, Wyoming and Western Railroad proposition, either as an individual, in the sense of being financially interested in it, or as a member of the firm of Simpson and Watkins in any way? A. I do not think I was. I think in explanation I ought to say, if Watkins had said to me, "I put so much money in this scheme, and you ought to go halves in it," I would have done it. I did not believe in the scheme, I did not like it, and I did not want to belong to it.

Q. It is a fact that Mr. Watkins' name appears as a subscriber for a certain number of shares, individually. What I understand you now to say is that you assume you would have been interested in them because of his interest in them? A. Yes, sir; we were partners.

Q. Did you have any such understanding as that with him at any time? A. I do not think we did. I do not remember. It was a kind of a paper proposition. I said, "Oh, hell, you never can build that road. What is the use fussing with it." They thought they could, and I did not want to be bothered with it.

Q. You speak of being a partner. Your partnership was as to the stores in connection with the mines, was it not? A. Yes, sir. Simpson and Watkins were a firm only doing a mercantile business.

Q. But your association with him as stockholder —— A. We were interested in different collieries together as stockholders.

Q. That is what you mean when you speak of your relations with him at that time? A. Yes, sir.

Q. I do not know whether I have a right to ask you who you did represent in the subscription that you made, any further than to say it was disassociated either from Simpson and Watkins or Mr. Simpson or Mr. Watkins, but I would like to ask you if you have any objections to telling how you came to sign your name to these articles as agreeing to take a certain number of shares of stock? A. I have no objection to telling.

Q. Please tell us, if you have no objection. A. I took them for Mr. E. L. Fuller.

Q. At his request? A. Yes, sir.

FRANK E. SMITH, having been duly sworn, was examined as follows:—

By JUDGE MOOT:

Q. State your age, occupation and residence. A. I am fifty-two years old, residence 338 Stage Street, Hackensack, New Jersey. Occupation, milk freight agent Erie Railroad since April 1st, 1909, prior to which I was division freight agent of the Erie Railroad, from May 1st, 1907.

Q. You say of the Erie? A. Yes, sir.

Q. Did you have anything to do with the Susquehanna? A. Prior to that date I was division freight agent for the New York, Susquehanna and Western, from July 1st, 1898, to May 1st, 1907, and, from May 1st, 1907, to April 1st, 1909, division freight agent of the Erie Railroad.

Q. As division freight agent of the Susquehanna you covered what territory? A. The entire New York, Susquehanna and Western system, including Wilkes-Barre and Eastern.

Q. That was the entire system of the Susquehanna? A. Yes, sir.

Q. As freight agent of the Erie after you ceased to be freight agent of the Susquehanna, you covered what system? A. I covered the main line and branches east of Susquehanna on the Delaware Division, including the Wyoming Division and the Northern Railroad of New Jersey.

Q. The Susquehanna you speak of east of which your freight division on the Erie lay, is Susquehanna on the Susquehanna River in the State of New York? A. Susquehanna, Pennsylvania, on the Susquehanna River. Just east of Binghamton, New York.

Q. As milk agent of the Erie at the present time your

territory is what territory? A. The entire system east of Buffalo and Salamanca, including the New York, Susquehanna and Western.

Q. So that you now have charge of all the milk business of the Erie or lines that it controls in any way east of Buffalo and Salamanca in the State of New York? A. In all States.

Q. That covers the entire milk business necessarily of New York City? A. Yes, sir.

Q. And also the milk business of such cities, in part at least, as Buffalo, Elmira, Binghamton and smaller places? A. Yes, sir.

Q. Before you were division superintendent of the New York, Susquehanna and Western what was your business? A. I was general freight and passenger agent of the New York, Susquehanna and Western Railroad.

Q. For what period of time? A. Prior to the Erie taking hold of the New York, Susquehanna and Western. I was the general freight agent of the New York, Susquehanna and Western from December 1894, I think.

Q. Prior to that time what were you? A. I was general freight agent of the Lehigh and Hudson River Railroad.

Q. As freight agent of the Susquehanna and Western from 1904 you covered what field, or arranged what business? A. The entire freight business of the New York, Susquehanna and Western system.

Q. The Lehigh and Hudson is a railway not connected with the Erie? A. In no way, shape or manner, excepting as a connection.

Q. What system is it connected with? A. It is an independent line.

Q. Generally speaking, an independent line between what main points? A. It forms a part of the through line between the coal fields of Pennsylvania and New England territory, made up in connection with the Poughkeepsie Bridge road, connecting on its western end at Easton, Pa., with the Lehigh Valley and Central Railroad of New Jersey, and at Belvidere with the Pennsylvania

Railroad, and on the eastern end at Maybrook with the New York, New Haven and Hartford system.

Q. How long were you connected with the Lehigh and Hudson in that way? A. From ten to twelve years, as near as I can recollect.

Q. Did you have anything to do with the coal business? A. Nothing, only approval of tariffs that were issued over our line by the initial carriers.

Q. If the New York, New Haven and Hartford undertook to file a coal tariff from any of these points in Pennsylvania where they get coal that you have mentioned, or any of these railroads that would give it coal to carry to points on its own line, and it was necessary to have the concurrence of the Lehigh and Hudson, under the Interstate Commerce statutes, that would come under you? A. The situation would be reversed. As a terminal road, of course, they would not issue a tariff. The tariff would be issued by an initial line. If that condition would exist by the initial line, we would concur in it, in conformity with the Interstate Commerce.

Q. In other words, if the Pennsylvania or Lehigh or Jersey Central issued tariffs running from their lines into New England, they would have to get your concurrence as a connecting link? A. That is the idea.

Q. You had to pass on whether the tariffs should be concurred in yourself? A. So far as the Lehigh and Hudson Railroad was concerned.

Q. You had not anything to do with the superintending of the handling of the coal trains on the Lehigh and Hudson Railroad? A. Nothing whatever.

Q. The Lehigh and Hudson consisted of about how many miles of tracks? A. About ninety miles.

Q. Was it operated with its own motive power? A. Entirely; yes, sir.

Q. While you were there did you become familiar with the manner generally in which this coal traffic was handled that went over the Poughkeepsie bridge into New England? A. Only so far as the handling of it on the Lehigh and Hudson River rails were concerned.

Q. How was it handled there? A. Handled as a rule through trains, and if there was sufficient tonnage to make a solid coal train, we made up such trains. Otherwise, it was moved in mixed trains with other classes of freight.

Q. How was the Lehigh and Hudson between this bridge at Poughkeepsie and Easton and the other points in Pennsylvania as to being mountainous or comparatively level railway, hard or easy to operate? A. Comparatively level and easy to operate. One or two small grades of a local character, but nothing of any serious character.

Q. Was this operation of these coal trains conducted by hitching on Lehigh and Hudson engines onto the trains at Easton or other points where these railways delivered the coal to you and drawing the trains through to the point near Poughkeepsie bridge where you turned them over to the New York, New Haven and Hartford? A. Practically on that basis; yes, sir.

Q. Were there any mines on the Lehigh and Hudson? A. None whatever.

Q. So that the Lehigh and Hudson had nothing to do with gathering the coal? A. Nothing whatever.

Q. And the only deliveries of coal that you made were the deliveries to local points on its lines? A. That is all.

Q. Were there any local points on its lines at which any considerable coal tonnage was consumed? A. No large tonnage. There were no large developed towns anywhere along its lines.

Q. The largest town on the Lehigh and Hudson is a town of about how many people, and what town is it? A. Warwick, New York, probably twenty-five hundred population.

Q. That is up among the mountains, is it? A. It is in Orange County, New York, among the mountains; yes, sir.

Q. During the time you were connected with the Lehigh and Hudson did your business take you into the coal regions to any extent, or were you familiar with them to any extent, or is your knowledge of the coal regions simply a general knowledge? A. It is of a general knowledge. I have

been there to a greater or lesser extent, but not sufficiently to gain a detailed knowledge of the situation. It is a superficial general knowledge I have of it.

Q. When you went over from the Lehigh and Hudson to the New York, Susquehanna and Western did you have anything to do with the coal business yourself? A. In a way. My instructions were given me by the superiors as to what rates should be issued in the shape of a tariff, and I simply conformed to those instructions and issued tariffs on that basis. So far as the making up of the tariffs was concerned, that was not done through my office. I mean as to the figures. Simply the physical part of the construction of the tariff itself after the figures were given to me.

Q. Who was the president of the New York, Susquehanna and Western in 1894? A. In 1894, Simon Borg was the president.

Q. How long did Simon Borg continue to be the president? A. I really do not recall. He died afterwards and was succeeded by a Mr. Amos L. Hopkins.

Q. Amos L. Hopkins came in as president about when? A. I should think about 1895 or 1896.

Q. He continued president about how long, until about when? A. He continued president until it was taken over by the Erie July 1st, 1898.

Q. Then who came in as president? A. Mr. E. B. Thomas.

Q. He remained president while he was president of the Erie? A. Yes, sir.

Q. Then he was succeeded as president by Mr. Underwood, the president of the Erie? A. Yes, sir.

Q. Aside from the making of these rates on anthracite coal over the New York, Susquehanna and Western, as you have stated they were made by you under instructions from your superiors, what other connection did you have with the anthracite coal business on that road? A. Practically no other connection at all.

Q. You did not supervise the train movements? A. A. None at all.

Q. Nor you did not collect the rates? A. No, sir.

Q. You did not either get or fail to get the coal business? A. No, sir. I was not responsible for it.

Q. So that practically the only connection you had with the coal business was simply to assist in making the rates under your superior officer, as you have stated? A. That is right.

Q. You continued to hold this position in substance after the Erie acquired the majority of the stock which it acquired of the New York, Susquehanna and Western, as I understand you? A. Do you mean up to the time at which the Erie took the active operation of the road?

Q. Yes. A. I don't know that I quite understand that question.

Q. At the time the Erie took the active operation of the road your position with the New York, Susquehanna and Western was what? A. Division freight agent of the New York, Susquehanna and Western Railroad.

Q. How did you find out when the Erie acquired a majority of the stock? A. I did not find out excepting what I read in the papers. That is all I knew.

Q. What change, if any, was immediately made in the management of the New York, Susquehanna and Western as the result of that change announced in the newspapers? Any that you can recall? A. Do you mean as to the physical taking over of the New York, Susquehanna and Western property and arranging for the handling of the business?

Q. Yes; the taking over of the line, the running of engines, or anything of that kind. A. The first movement made was to throw open the terminals of the Erie Railroad at the New York city harbor to the New York, Susquehanna and Western, and take its freight business away from the Pennsylvania Limited terminals that had been previously used.

Q. That occurred about how long after this announcement you saw in the newspapers that the Erie had acquired the majority of the stock of the New York, Susquehanna and Western? A. I do not know how long after that, but it occurred at once when the Erie took the active operation of the road, on July 1st, 1898.

Q. How long before that it acquired its stock you do not know? A. I do not know that.

Q. As to that particular move, taking the freight from the Pennsylvania terminals to the Erie terminals, in what way did that affect the shippers on the Susquehanna; favorably or unfavorably? A. Decidedly favorably. Under our arrangement with the Pennsylvania Railroad we only had the use of a limited portion of the Pier 16 at the foot of Cortlandt Street, New York, on the New York side. That was all the New York terminal facilities we had for taking care of the freight business of the New York, Susquehanna and Western Railroad. On the Jersey City side we had the use of one siding of the Pennsylvania Railroad in the Jersey City yards. I have forgotten now just what the capacity of that siding was, but, it was of a limited character, and we had a small building out at First Street, Jersey City, where we handled our merchandise. We were very much cramped and necessarily curtailed the movement of business we could do, resulting in congestion and unsatisfactory service. Of course, when we had the benefit of the Erie terminals in New York city, extensive as they are, it gave us an opportunity to branch out in all directions, and gave our patrons the benefit of this increased facility, not only in New York, but in Brooklyn, Jersey City and Weehawken. Under the old arrangement the only way in which we had of making any lighterage deliveries in New York harbor was through our own Edgewater terminal near Fort Lee, which in those days, until the latter part, was beyond the lighterage limits, and our lighterage was done through an outside source in the New York harbor, the New York Lighterage Company, and, being so far away, we could not depend upon their service with any regularity, and the result was we were unable to develop any business requiring lighterage movement in New York harbor, and on the opening of the Erie facilities to us, of course we got the benefit of the New York marine department for our lighterage service, using the same terminals at Jersey City and Weehawken for our lighters that the Erie did, which was of a decided advantage.

Q. That was a decided advantage to the shippers, because so far as the shippers were concerned, they were put in a better position in what respect? A. In the dispatch of their business and in being able to get business over the Susquehanna to their own station, which was more convenient for them to handle than what it would be at other points, especially in towns like Paterson, Passaic, or towns of that kind, where by reason of our limited facilites they were forced to go where they could get the service, regardless of the inconvenience on the other end of the line.

Q. In other words, a man in Paterson more conveniently located so far as your line is concerned, to use your line, might be forced to use another line in order to get the facilities down here in New York? A. That is the idea.

Q. And, in the same way, he might have to order stuff from New York by another line on account of the difficulty in getting that stuff to your line so as to get it to him? A. With the service we were in a position to render at that time.

Q. As to the charges for the service rendered after this change was made to the Erie terminals, was there any difference in charge to the shipper from what he had to pay before when you used the Pennsylvania facilities? A. None, whatever, excepting such changes as were incident to the ordinary run of business. That is all. There were no changes made because of the change of the use of the terminals in New York harbor.

Q. So for the increased facilities he got, you mean he did not have to pay anything additional? A. No, sir; he did not.

Q. Did he get it any cheaper than he got the —— A. None whatever. There was no change made.

Q. So much for the freight business outside of coal. So far as the coal business of the New York, Susquehanna and Western was concerned, did you know enough about that so that you could tell whether any change was made in that in any way as the result of the Erie taking over

the active management? A. No; I had nothing to do with the coal business after the Erie took over the Susquehanna and Western.

Q. So you could not tell about that? A. No, sir.

Q. You spoke of Edgewater being at what is sometimes called Fort Lee and being beyond the lighterage limits in the beginning of your connection with the New York, Susquehanna and Western? A. Yes, sir.

Q. Had the tunnel of the New York, Susquehanna and Western been completed and put into operation so that cars could be hauled through that tunnel to Edgewater at the time you took your position with the New York, Susquehanna and Western? A. Yes, sir.

Q. That was about when? A. About December, 1894, as I remember it.

Q. The tunnel had just been completed at that time? A. It had been completed just shortly before that.

Q. How long after that do you think it was before the lighterage limits of New York were changed so that you could get deliveries from Edgewater by lighterage? A. I think that change was made somewhere about 1897—the latter part of 1896 or 1897 I think.

Q. That would be your recollection? A. Yes, sir.

Q. By lighterage I suppose you mean that boats, barges, tugs and all kinds of vessels plying the Hudson River and the Sound and the lower bay making deliveries in various ways by water, in New York and Brooklyn, on some kind of a schedule or water rates, then came into connection with Edgewater so that Edgewater got the benefit of those water rates and water movements for deliveries? A. That is exactly it. Prior to that time they were subject to an extra towage charge from the lighterage limits up to Edgewater.

Q. That was the condition made by Edgewater coming into the lighterage limit, that the extra towage charge was cut out? A. That is it.

Q. Do you know about what that was? A. No; I do not know what that was.

Q. It was a sufficient item, you say, so that you were

not able to develop any business until that change was made that you speak of? A. Yes, sir. The disadvantage we were working under more particularly was that we were unable to arrange with any other lighterage company doing lighterage business to give us the service that we could depend upon, because of the distance from the density of traffic in New York harbor. It meant taking them out from their regular line of business. It might be sometimes we might only have one or two cars of freight to be lightered, and it would mean an all-day trip for the tug and lighter to get this one car or these two cars.

Q. Then, in short, the business of the Susquehanna at Edgewater at that time was so small on the one side, and was so far away from the volume of business on the other, that it was not attractive to those companies that were moving and delivering freight by water at that time? A. That is the idea; yes, sir.

Q. Has there been any change generally, not only as to the Susquehanna, but as to all companies with reference to the amount of such business being done in the region where Edgewater is at the present time as between say 1894 and the present time? A. That is as to the volume of business to and from Edgewater?

Q. Yes, and that vicinity. A. So far as the Susquehanna and Western is concerned, you understand that after the Erie took over the Susquehanna and Western, the lightering was all done from its Weehawken piers, and we did not undertake to do any lightering at Edgewater because of its location being so far north.

Q. Then one result of the Erie taking over the active management of the New York, Susquehanna and Western was that if the New York, Susquehanna and Western had freight to deliver by lighter, instead of being sent up to Edgewater to be lightered, it was sent to Weehawken to be lightered? A. Yes, sir.

By MR. TODD:

Q. You are referring to freight other than coal now? A. Yes, sir.

By JUDGE MOOT:

Q. Is that the way freight of the New York, Susquehanna and Western is still handled? A. Yes, sir.

Q. So that the New York, Susquehanna and Western gets the advantage of Weehawken, which is a better lighterage point than Edgewater? A. Yes, sir.

Q. What additioinal expense does that impose on the shippers over the New York, Susquehanna and Western? A. None whatever.

Q. What additional expense does it impose on the Erie? A. I have no information as to the basis of the division between the Erie and the Susquehanna and Western for the use of its terminals. That is an accounting matter I have no information of.

Q. The acounting office of one of the two companies would show what the effect of the arrangement between the Erie and the New York, Susquehanna and Western as an accounting matter is? A. Yes, sir.

Q. And which company, if either, has the better of the arrangement? A. Yes, sir.

Q. Has this change in handling lighterage freight of the Susquehanna from Weehawken instead of Edgewater had any effect on the amount of freight business done over the New York, Susquehanna and Western? A. I think it has unquestionably added to the volume of business by reason of these facilities. Take, for instance, one item of ice; it has been developed to a very large extent since the Erie took hold of the Susquehanna and Western, and a considerable portion of that ice is lightered through New York harbor, Brooklyn and Long Island points and so forth, which under the old Susquehanna and Western arrangement we were never able to develop.

Q. Can you give us an idea from figures or otherwise, as to the growth of this ice business, as an illustration of what you are talking about? A. Prior to 1898 the only ice business done on the New York, Susquehanna and Western Railroad was from an ice plant at Charlottsburg, New Jersey, and that business ran from twenty-five to forty thousand tons a year, dependent upon the quantity of ice gathered, and the weather for the sale of it.

Q. It yielded a gross revenue to the New York, Susquehanna and Western of about how much? A. Anywhere from ten to twenty-two thousand dollars per year. About the year 1900 we began to develop ice traffic from the Pocono Mountains, and the ice tonnage increased from the figures I have just given you from the Charlottsburg Ice Company up to two hundred and fifteen thousand tons during the year 1908, giving us a revenue of $154,000.

Q. Can you give us the revenue for any more years of the ice business? A. Yes, sir. The revenue for 1907—I am speaking now of the fiscal year ending June 30th—the year 1907 our tonnage was one hundred and sixty-six thousand, revenue $114,000. In 1906 it was practically the same. In 1905, one hundred and eighty-eight thousand tons, revenue $112,000. In 1904, one hundred and forty-two thousand four hundred and sixty-five tons, $79,879. 1903, one hundred and seventy-one thousand four hundred and fifty-two tons, revenue $99,682. 1902, one hundred and twenty-one thousand five hundred and fifty-two tons, revenue $56,785. In 1901, seventy-eight thousand one hundred and twenty-one tons, revenue $44,471. 1900, one hundred and thirty-six thousand six hundred and eighty-two tons, revenue $71,709.

Q. I observe that sometimes as you read those figures the tonnage seems to be larger relatively than the revenue as compared with other years when you compare the tonnage and revenue. What is the explanation of that? A. The explanation of that is the haul that was performed on the ice. In other words, the markets in which the ice was disposed of. Some of it might have been on a long distance haul, and others on short distance haul, where the rates are very much lower.

Q. What other places did you deliver ice except here in New York harbor? A. We delivered ice at Paterson, Passaic, Hackensack, points on the Erie Railroad, the Newark branch, points on the Erie Railroad and New York Lake Divisions, Erie main line points, points on the Pennsylvania, Central Railroad of New Jersey and Philadelphia and Reading.

Q. I observe from what you have just said now that your ice business that originates on the New York, Susquehanna and Western carries these cars loaded on its tracks a long distance from home to points on other railway lines where the ice is delivered. That business is done in what way? In the usual way, by joint rates? A. Under joint rates, yes, sir.

Q. Did the New York, Susquehanna and Western have such joint rates with all these other railroads so that it could make deliveries of ice in this way on joint rates before the Erie acquired control of it? A. Only to a very limited extent.

Q. How soon after the Erie acquired control of it did these joint rates come into effect so that the people originating the ice or any other business on the lines of the New York, Susquehanna and Western got the benefit of those joint rates to distant points on other railways? A. Those joint rates were treated and put into effect just as soon as they could be worked up.

Q. That was one of the first things done as soon as the Erie got control? A. That was one of the first things done, to establish joint rates with connecting lines.

Q. Just how do those joint rates with the connecting lines affect the shipper; beneficially or otherwise? A. Beneficially.

Q. Why? A. Without the joint rates, the only rates that could be used would be a combination of the local rates, which invariably was very much higher than a through rate, and in the absence of a joint rate, there was no other rate to be used, excepting the sum of the locals.

Q. So that the general result is the producer of ice or anything else on the Susquehanna gets a lower rate on freight which is carried long distances to market on other lines? A. Exactly. Without joint rates it would be an impossibility to market the ice.

Q. If he did not have those lower joint rates, would he be able to compete successfully with the producer of ice on another line who could put it in cheaper with a joint rate? A. He would not be.

Q. So that any considerable business in ice, or any other commodity, on the Susquehanna lines could only be created if these joint rates could be obtained that would enable the shipper to get the benefit of the lowest rates for long distances to points on all the other principal railway lines in the country? A. That is correct.

Q. After these joint rates were put in, after the Erie got control, did the freight business of the Susquehanna show any result or effect of these joint rates one way or the other? A. It showed an increased earnings for the New York, Susquehanna and Western Railroad.

Q. Can you give us any idea of the extent to which the revenues of the New York, Susquehanna and Western have increased? A. Yes, sir. Take for instance, Passaic; on freight received for the fiscal year ending June 30th, 1895, the revenue was $17,054.58; for the corresponding year of 1905 the revenue was $35,803. This is all freight except coal. I am not testifying on coal. It is all freight exclusive of coal and milk. The milk business is not included in these figures, excepting a very nominal quantity, which is what we call our waybill milk. Milk as a whole is handled under what we call manifests, and it is only for some few local points where there is waybill milk sent, and such waybill milk is included here.

Q. Your general milk business is handled, I presume, under what you call the milk rate? A. Yes, sir; a milk rate.

Q. As the result of a contest years ago before the Interstate Commerce Commission, involving all the railroads throughout New York, a compromise was made, which resulted in a zone rate being put in effect on all railways. A. By order of the Interstate Commerce Commission; yes.

Q. The milk business in and about New York is still handled by all the railways under this zone rate of the Interstate Commerce Commission? A. Yes, sir.

Q. So that in so far as milk alone is concerned, the milk producer on the New York, Susquehanna and Western gets substantially the same rate as the milk pro-

ducer on any other railway in the same zone? A. In the same zone covering the same distance. In 1896 for the fiscal year ending June 30th, the revenue was $15,166. For 1906, $35,101. This is on freight received at Passaic. For the fiscal year ending June 30th, 1897, $16,794. 1907, $74,571. For 1898 I only have eleven months. For the eleven months the revenue was $16,159. For 1908, $52,433.

Q. You have the odd cents in every case, but you omit those? A. I just called off the even dollars. Referring to Paterson. At Paterson for the year 1895 $39,345; for the year 1905 $43,101; for the year 1896 $48,052; for the year 1906 $44,750; for the year 1897 $39,908; for the year 1907 $42,746; for the year 1898, eleven months, $40,606; for the year 1908 $47,777.

MR. MCREYNOLDS:—Is the purpose of this examination to show that the freight traffic over the Susquehanna road has increased in ten years?

JUDGE MOOT:—Most emphatically.

MR. MCREYNOLDS:—We do not dissent from that proposition. You can simply say the Government admits that.

JUDGE MOOT:—If the Government will admit that, I will stop this, but, I propose to go further and show not only that the general freight business of the Susquehanna has increased, but, I propose to show that it has increased because the Susquehanna is a natural auxiliary and feeder of the Erie, and never was a competitor in any sense but a negligible one.

MR. MCREYNOLDS:—Your figures seemed to indicate that you were endeavoring to conclude from them that its business had increased. The Government has no dispute with you on that proposition. It is perfectly willing to admit that the business in ten years has increased. We offer to admit that to avoid the unnecessary incumbering of the record with figures.

JUDGE MOOT:—My purpose is to prove that you have no foundation for attacking the acquiring of a majority of the stock of the Susquehanna by the Erie on the theory

that those were competing railways. And my proper purpose is to show that the public, the shippers, are very greatly advantaged by what has happened and not disadvantaged in any way, shape or form; nor is restraint of trade intended or affected, and, of course, you will not concede those things.

MR. MCREYNOLDS:—Hardly. We do concede, and that seemed to be the purpose of your figures, that the freight business of the Susquehanna road has increased in ten years. You can take that as a basis if you can conclude anything from it.

JUDGE MOOT:—That is not the purpose of my figures alone, but I have to give my figures to show the steady, constant advantage to the shippers on this Susquehanna Railroad resulting from what has happened.

THE WITNESS:—Middletown, N. Y., 1895 $17,070; 1905 $13,545; 1896 $10,140; 1906 $21,688; 1897 $7413; 1907 $21,904; 1898 $9606; for eleven months 1908 $17,-653. I also have some figures here showing the earnings of the N. Y., S. & W. system on merchandise only in the years 1902 to 1908, showing an increase from $381,476 to 1908 $709,526.

Q. Is that increase a pretty steady and gradual one from 1902 to 1908, without giving the figures for the intervening years? A. A steady increase, and that covers merchandise only, no coal and no milk, excepting waybill milk.

Q. Does it cover ice, for instance? A. Yes, sir; it covers ice.

Q. You have given us Passaic, Paterson and Middletown in particular. You are familiar with the business in those places both before and after the Erie acquired the control of the Susquehanna? A. Pretty generally; yes, sir.

Q. Were the Erie and the Susquehanna competing railways in those places or either of them? A. I would not consider them in the strict sense of the word that they were competitive points whatever.

Q. Why not? A. In Paterson, for instance, the spur

into Paterson City has very limited facilities, track room, and so forth, for Paterson City freight, and about the only business that we ever did on those tracks to any considerable extent was in the nature of brick and building material, which it was more convenient to receive over the Susquehanna and Western either by reason of the location of the brick shipping points, or by reason of the location of the places where the building material would be used.

Q. That being true of the Susquehanna at Paterson, go on and finish your description of the Susquehanna there before you take up the Erie, and compare it with the Erie. A. At Broadway, Paterson, which would be our largest delivery for freight, it is distant from the heart of Paterson City fully a mile, and our deliveries out there were confined largely to building material and feed used in that particular section of the city.

Q. Feed of what description? A. Feed for horses and so forth—mill feed.

Q. How was it with the Erie in Paterson as to its facilities? A. They are located very centrally through the city. In fact, their main line runs right through the city, and industries are located along its tracks, with side connections with the Erie very largely, and they are more convenient to serve the city of Paterson, as a whole, than the Susquehanna and Western.

Q. Assume that a shipper ordered his freight sent to him in Paterson over the New York, Susquehanna and Western at that time, the shipper himself being a mile away in the central part of the city, the older part of the city that had developed down about that time, when his freight came in on the cars of the Susquehanna, the shipper then would have to do what to get his freight? Hire teams? A. From our delivery at Paterson?

Q. Yes. A. Oh, yes; he would have to hire teams to make the delivery from the freight house.

Q. That would be an added expense? A. Yes, sir. Do not misunderstand me, so far as merchandise business is concerned, the deliveries were not particularly disad-

vantageous on the Susquehanna and Western as compared with the Erie, but there was no great amount of merchandise business coming in over the Susquehanna and Western, excepting that which suited the convenience more on the Susquehanna and Western than on the Erie. But the deliveries of the merchandise business were made in Paterson City through our freight house.

Q. I asked the question I did, because you said in the main the deliveries on the New York, Susquehanna and Western in those days were building material, bricks and feed, as I understood you? A. I had reference to our side track for carload business.

Q. I am asking more particularly with reference to that particular business, to see why that was. As I understood you, if a man ordered brick or building material or feed, he being located in the central part of the city, and it came in on the Susquehanna and Western, he would have to hire teams to go up there and unload that car and bring it down to him? A. Exactly.

Q. Whereas, if he ordered it in over the Erie with public team tracks and side tracks convenient to him, he saved that mile of travel or half a mile of travel? A. He saved the additional truckage of the property. The Erie delivery, on account of its running through the city of Paterson, they have a number of places extending a mile through the city what they call track deliveries, which make it accessible for nearly all parts of the business part of the city.

Q. So that the expense of the person himself in getting his freight was an advantage the Erie had that the Susquehanna was unable to meet? A. That is true.

Q. This you say did not apply so much to merchandise? A. No; not so much to merchandise.

Q. Is that because merchandise is a high grade of freight coming in boxes usually, in small compass, and easily handled wherever it comes, as long as it comes into the city? A. Yes, sir. That is true. And because we had fairly good facilities at Paterson for the handling of merchandise business. That business continues to grow proportionately about the same as it did up to the time that the Erie took hold of the road.

Q. How is it as to the other business, as to whether that has grown proportionately or faster? A. It has grown relatively in about the same ratio. In fact, a little more, to a greater extent than that, because the development on the east side of the city has been phenominally large in the last ten or fifteen years.

Q. If I remember correctly, you said you did not consider the roads competitive in any true sense in Paterson? A. I said so.

Q. Was there any attempt down to the time that the Erie acquired the Susquehanna by the Susquehanna to compete with the Erie by making lower rates or advertising or soliciting or otherwise so as to get freight from the Erie? A. There was nothing done excepting in the way of soliciting. Of course, we were always soliciting for all the business we could get, and that was our purpose to solicit around the city for what we could get.

Q. To what extent did soliciting by the Susquehanna result in increasing its business or decreasing the business of the Erie? A. Very little, indeed.

Q. What per cent. would you put it? A. I do not know that I could make any figure on it. The amount was very small.

Q. Five per cent.? A. Five or ten per cent., I should think, would very fully cover all of it. Very fully cover it. Even that probably would be excessive.

Q. Which, the five or the ten? A. The ten would be excessive.

Q. What do you think about five? A. I think five might possibly represent it more accurately.

Q. Did you not know about the passenger business? A. I had charge of the passenger business at that time, but have not had anything to do with it since the Erie took over the Susquehanna road.

Q. Did you know or observe at that time as to whether there was any competition between the Erie and the Susquehanna for passengers? A. No, because the travel over the Susquehanna and Western road was influenced very largely—I am speaking of growing travel—was influenced

very largely, in fact, almost entirely by reason of the terminal location in New York. The Susquehanna landed the New York terminals at Cortlandt and Desbrosses Street as against the Erie terminals at Chambers Street and Twenty-third Street.

Q. Which way did that work, or did it not work either way, as between the Erie and the New York, Susquehanna and Western? A. That would be a difficult matter to say how that would work because it would depend on the locality that the passenger wanted to reach.

Q. If a passenger in Paterson could reach the locality he wished to in New York more advantageously by going by the Susquehanna, as to time and otherwise, he would go by the Susquehanna? A. Yes, sir. Bearing this in mind, of course, that the Erie was the shorter line and had the advantage in time by about twenty minutes. That sometimes influenced travel to the Erie regardless of the location of the terminal in New York too.

Q. Which road did really have the larger freight business, the Erie or the Susquehanna at that time? A. The Erie.

Q. Have you any idea how much larger? A. No.

Q. Was it very much larger? A. Very much larger.

Q. How about the passenger business? A. Very much larger.

Q. The Delaware, Lackawanna and Western also came into Paterson. As between the Delaware, Lackawanna and Western and the Susquehanna, as to competition for freight and passengers, how was it? A. The Delaware, Lackawanna and Western have only limited facilities in the city of Paterson. They have a spur running off into the city which makes their freight house adjacent to the Erie freight house, so that they were really not a competitor of the Susquehanna and Western any more than the Erie; in fact, not as much as the Erie.

Q. They were more a competitor of the Erie than of the Susquehanna and Western? A. Yes, sir.

Q. Does that apply to both freight and passengers? A. They are really not a competitor in the passenger business

even to-day. The passenger business is conducted on their main line at Barkley Street, away over on the other side of the mountain, and they are such a distance that they are not a factor in the passenger business to-day.

Q. The passenger business from Paterson to New York is handled by what companies? A. The Erie and the New York, Susquehanna and Western.

Q. Do you recall whether the passenger business of the Susquehanna and Western down to the time the Erie acquired control was increasing with any rapidity? A. Oh, it was showing a heavy increase all the time, a good increase.

Q. How has it been since the Erie acquired it? A. I do not know, only from observation.

Q. From observation? A. It would indicate a very large growth—a very large growth.

Q. You have not anything to do with the passenger business since? A. Nothing whatever.

Q. We will go to the next point, Passaic, I think you said? A. Yes, sir; Passaic.

Q. Is that further from New York than Paterson? A. No, sir; it is nearer to New York.

Q. How were those two roads, the Erie and the Susquehanna at Passaic as to being competitors? A. It was really a misnomer there; while the Susquehanna and Western called its station Passaic, it is really in Dundee, which is adjacent to Passaic, and really and physically part and parcel of it, but the Susquehanna and Western Dundee station or freight house is about a mile from the center of population of the city of Passaic. The industrial concerns are located in Dundee very largely, to a very large extent, on the Erie track with connections. There are a few along the Susquehanna and Western in Dundee. The business of those industries never belonged to and was not in any way at all part of the N. Y., S. and W. business. They really were not entitled to it, and all that they were entitled to in Dundee was what merchandise they could pick up from nearby patrons located near them, or the few industrial people who were located on their track.

Q. When you speak of entitled to, you mean naturally entitled to? A. Yes, sir. Naturally the business would belong to the Erie Railroad by reason of the location of the industries.

Q. In other words, the Erie has been located both in Passaic and in Paterson for a great many years, industries had adjusted themselves to that location, with rail connections, and when a new railway came in years afterwards at the outskirts it was at a disadvantage? A. Surely.

Q. How did that disadvantage to the New York, Susquehanna and Western show itself at Passaic further than you have stated, if at all? A. It showed that the Erie enjoyed the business of Passaic by reason of its location, and also enjoyed the business of the industries that were located on its track.

Q. To what extent, if any, did the New York, Susquehanna and Western succeed in making inroads on that, or trying to make inroads on that business at Passaic? A. To a very small extent.

Q. Give us your best estimate of that? A. I could not make any figures on it at all. It is exceedingly small there. There might have been some little business originating on some connecting line, that by reason of the geographical location of it could have been handled more advantageously over the Susquehanna and Western, but they were isolated cases. As a general proposition, the Susquehanna handled but very little business in connection with the industries located in Dundee other than those on or adjacent to its own track.

Q. Were they competitors for five per cent. of the Passaic business do you think? A. Simply as a guess I should say not to exceed that.

Q. To go to Middletown; how is it with Middletown? A. Middletown the Erie is located practically in the center of the town, and has been there for many years. The Susquehanna and Western is over on one side, probably a mile away, in a small settlement section of the city, no business done in that section to amount to anything. We never considered ourselves a competitor in Middle-

town. We made little effort to get business there either in or out. We are disadvantaged by reason of our distance being about twenty miles further than the Erie. We did not maintain the freight service, by any means, that the Erie did, or really did not cater to it.

Q. To what extent, would you say that the Erie and the New York. Susquehanna and Western were competitors, if at all, as a limit at Middletown? A. To put it in figures I should think the Erie Railroad would enjoy probably eighty per cent. of the business in Middletown.

Q. It would enjoy eighty per cent., and to what extent would there be any part of the twenty per cent. that was competitive as between the two? A. Scarcely any whatever. There might be some isolated case of competitive business that would reach there over the Susquehanna tracks probably through a mistake more than intentionally.

Q. In other words, the business of Middletown would divide itself into eighty per cent. and twenty per cent. with reference to the relative locations of the two roads? A. That is the idea exactly.

Q. There was practically no competitive business there, is that correct? A. No; that is correct.

Q. Applying the same rule at Paterson, the business at Paterson, as between the Erie and the Susquehanna would divide itself into business naturally tributary to the Erie and tributary to the Susquehanna in about what proportion would you say? A. I would not like to give figures on that. I do not think I could do it intelligently.

Q. At Passaic could you do it or could you not do it? A. No.

Q. You have told us what amount of business at a limit you think would be competitive in either Paterson or Passaic? A. Yes, sir.

Q. Even if you went out after it? A. Yes, sir.

Q. Were there any other points? A. There were no other points that the Erie and Susquehanna and Western came anywhere near together, except at Hawthorne, which is simply a small hamlet with no business there to amount to anything at all.

Q. So that those three points, Middletown, Paterson and Passaic are the only points where there was any competitive business? A. Yes, sir.

Q. You have given the business on the Susquehanna for a series of years at each of these points? A. Yes, sir.

Q. Both before the Erie got control and afterwards? A. Yes, sir.

Q. You have given us your best judgment of the extent to which there was any competitive business at either point? A. Yes, sir.

Q. Was there any competitive business, leaving out coal and milk, that you know of, passenger or freight, except at those three points, as between the Erie and Susquehanna? A. There was not.

Q. You know where the Susquehanna runs to and so forth? A. Yes, sir.

Q. Look at that map and tell us about what the population of Paterson and Middletown and Passaic is, if you know? A. Paterson, I think is about one hundred and twenty-five thousand.

By MR. TODD:

Q. Do your answers still exclude coal, or in the last few questions you answered were your answers inclusive of coal? A. I do not include coal in any of my testimony at all, other than the direct questions that were put to me on coal.

Q. In other words, only in the questions in which coal was specifically named, you were testifying with respect to coal traffic? A. Yes, sir.

Q. Elsewhere not? A. Not.

By JUDGE MOOT:

Q. Passaic has a population of about how many? A. Passaic has, I think, about forty thousand. That would include the Dundee section I am speaking about.

Q. And Middletown? A. Middletown about twenty thousand. Maybe twenty-five thousand.

Q. Are those places all what you might call manufacturing places? A. Yes, sir.

Q. If you will, name the other places aside from those

three, the principal places that are served by the Susquehanna and give the population as near as you can from your judgment? A. Hackensack, New Jersey, population of about fourteen thousand, more a residential town. Very little manufacturing done there. The next town of any importance would be Butler, probably two thousand population. There is some little manufacturing done there, rubber shoddy and hard rubber goods and a paper mill. The next would be Hamburg, quite a large wax paper plant there, population of Hamburg probably is six or eight hundred, maybe a little more than that, possibly a thousand. Sussex, New Jersey, an agricultural section, probably twelve hundred population, and two or three smaller towns between there and Middletown, with populations ranging from fifty to one hundred and fifty to two hundred or three hundred people. On the other branch running toward Stroudsburg, Blairstown, I guess is the largest place, probably a thousand population. Stroudsburg, the two towns, Stroudsburg proper and East Stroudsburg, probably ten or twelve thousand population. That covers the principal towns.

Q. Of those places that you have mentioned now how many of them have any other railroad connection except the New York, Susquehanna and Western? A. At Franklin—I did not mention that place—but Franklin has railroad facilities with the Delaware, Lackawanna and Western.

Q. Better or not so good as the Susquehanna? A. About as good. About the same conditions. Whatever travel there is out there, so far as the passenger business is concerned, is very largely of a local character on either road. The freight business is pretty well competitive betwen the two lines, except there is a lot of limestone moved from there which is moved exclusively over the Delaware, Lackawanna and Western by reason of the location of the quarries. The Lehigh and Hudson serves one side only and not very much of a factor. Hamburg, New Jersey, has the Lehigh and Hudson River Railroad, that serves it in entirely a different manner from the Sus-

quehanna and Western, by reason of the geographical location of the road. Sussex, New Jersey, has the Lehigh and New England Railroad. It is not much of a factor, owing to its geographical location. Going towards Stroudsburg, the only point there with other railroad facilities is a country village Warvasse and Hainesburg, reached by the Lehigh and New England. Delaware, New Jersey, by the Delaware, Lackawanna and Western. There the Susquehanna and Western is no factor. It is located directly on the main line of the Delaware, Lackawanna and Western. Stroudsburg on the Delaware, Lackawanna and Western, and there we probably enjoy about half of the freight business in common with the Delaware, Lackawanna and Western. At the Delaware Water Gap—you cannot call that competitive, because the Delaware, Lackawanna and Western is on one side of the river and the Susquehanna and Western on the other side.

Q. The Delaware, Lackawanna and Western having the advantage? A. The Delaware, Lackawanna and Western having the advantage; yes, sir. That includes all the common points.

Q. I observe you said nothing about Wilkes-Barre. What about Wilkes-Barre? A. We have not run any trains in or out of Wilkes-Barre for a number of years.

Q. Since when, about? A. I should think since somewhere about 1904 or 1905.

Q. What is the matter with Wilkes-Barre? Wilkes-Barre is quite a place? A. Wilkes-Barre is a place with a population of seventy-five thousand or eighty thousand people. We were located across the Susquehanna River there from the city, and the amount of business that we did in the city, both freight and passenger was so small that it did not pay us to maintain the station and track leading to it and we simply abandoned it ten years ago, gave it up.

Q. How near to Wilkes-Barre do you run now? A. I think we run up as far as Plains, that is about four miles from there. We did the last time I was up there,

personally. They ran as far as Plains. I presume they are running that far yet. That is within about four miles from Wilkes-Barre. The only way of getting out there would be by trolley to Wilkes-Barre.

Q. Did they ever have any business from Wilkes-Barre to amount to anything, the New York, Susquehanna and Western? A. No, sir.

Q. Either freight or passenger? A. Either.

Q. Why was that? A. We did not have the facilities, could not give as good service as the other lines reaching there, the Lehigh Valley, the Central Railroad of New Jersey particularly being located with their main line with quick service and the stations of the New Jersey Central and Delaware and Hudson and Lehigh Valley and Pennsylvania were all adjacent to each other so that a merchant or a truckman could get goods from either of those stations without involving any additional cartage, whereas, to go to the Susquehanna and Western it was across the river from Wilkes-Barre and involved an additional haul of anywhere from a half to a mile in an entirely different direction from the location of the other stations. That influenced the business very largely. The only business the Susquehanna were in a position to handle at Wilkes-Barre was practically merchandise business, and that influenced the merchandise business entirely.

Q. So that you could not get the merchandise business? A. Could not get the merchandise business.

Q. Although the Susquehanna and Western had a line running from Wilkes-Barre to New York just like the other lines did? A. Better than the other lines because it was shorter by about three or four miles.

Q. Yet it could not compete with those lines? A. It could not compete with them.

Q. They had got in there first, got established in the center of the town and a half mile or a mile difference in location settled the question of competition? A. Surely.

Q. The Erie did not run into Wilkes-Barre at all? A. No, sir.

Q. Did not run within a hundred miles of there? A. Are you speaking of the Erie or the Erie and Wyoming Valley?

Q. I am speaking of the Erie proper. A. The Erie did not run anywhere nearer to Wilkes-Barre than Hawley as I can carry it in my mind. That must have been forty-five to fifty-five or sixty miles distant.

Q. To the northeast? A. To the northeast; yes, sir.

Q. If you add the Erie and Wyoming Valley to the Erie as a line controlled by the Erie then the Erie got about how near to Wilkes-Barre? A. Got down to a place called Plains Junction, which probably was six or eight miles from Wilkes-Barre, according to my memory.

Q. Are there any other branches of the New York Susquehanna and Western that reach any towns in or to New York, that you have not mentioned? A. Nothing excepting the Edgewater branch. Lodi branch leading into the village of Lodi.

Q. Something was said about the old New Jersey Midland having been built to Haverstraw, and all that. Those parts are not parts of the Susquehanna now? A. No, sir.

Q. So that whatever they may have been, they have been lost in the shuffle? A. Yes, sir.

Q. And the Greenwood Lake branch, if it was ever a part of the New Jersey Midland, is not now part of the Susquehanna? A. No, sir.

Q. That is a part of the Erie? A. That is a part of the Erie system.

Q. It did not come over to the Erie with the Susquehanna, either? A. No, sir.

Q. Just how all that came about you could not tell? A. I have no information on that.

Q. You spoke of the milk business of the Susquehanna. Tell us about the milk business of the Susquehanna? A. My knowledge on that is very limited. I have only been there since the 1st of April.

Q. So you cannot tell? A. I cannot say. I have not been there long enough to know.

Cross examination.

By MR. MCREYNOLDS:

Q. When did you first become acquainted with the New York, Susquehanna and Western Road? A. In December, 1894, as near as I can remember.

Q. When was the road constructed? A. I am not familiar with the periods at which the different sections of the road were finished. That was all done prior to my connection with it.

Q. You went with the road in 1894? A. Yes, sir.

Q. Where were its lines? A. Its lines extended from what was known as West End or Marion, New Jersey.

Q. Is that on the bay? A. No; it is about three miles west of Jersey City.

Q. On the Pennsylvania lines? A. It was the point of connection with the Pennsylvania lines. The lines extended west to Wilkes-Barre, Pennsylvania, with the branch extending from Two Bridges to Middletown, New York, another branch of about three miles in New York, from Passaic Junction to Passaic, and also the Edgewater Branch, running from Middletown to Edgewater three miles, and the only part constructed while I was with them was a little spur, about a mile long, running into Lodi, and what is known as the Susquehanna Connecting Railroad up in the coal regions connecting with the coal properties.

Q. Was this little Susquehanna Connecting Road constructed after you went with the Susquehanna? A. Yes, sir; that was constructed afterwards.

Q. When you first went with the Susquehanna it got into Jersey City over the tracks of the Pennsylvania road, did it? A. Do you refer to freight or passenger, or both?

Q. Both. A. Yes, sir; it got over the Pennsylvania Railroad tracks.

Q. It had an arrangement with the Pennsylvania Railroad under which it used the Pennsylvania terminal at Jersey City? A. Yes, sir.

Q. This terminal at Edgewater, when was that constructed? A. It was finished when I went with the com-

pany, and I think it was finished along in 1893, or possibly the first part of 1894.

Q. That terminal was used principally for coal? A. Coal; yes, sir. It was built particularly for that.

Q. The Erie Railroad was an old-established road before the Susquehanna Road was constructed, was it not? A. I would say so; yes.

Q. It had its terminals on New York harbor where it landed both its freight and its passengers, and had had for many years before the Susquehanna Road was constructed; is that right? A. I cannot answer you as to that. I do not know just exactly what date the Erie began to acquire its terminals in New York harbor, or I am not thoroughly familiar with the dates on which the Susquehanna and Western Road was constructed.

Q. What was the principal business of the Susquehanna Road when you went with it in 1894? A. Purely of a local character, serving the towns located along the line of the road with the necessaries of life and building material and transportation of milk.

Q. Was not its principal business hauling anthracite coal from the mines? A. Exclusive of coal I should have said, of course.

Q. I am asking you not exclusive of coal. I want to know the whole business of the road. A. I simply overlooked the coal.

Q. The principal business of the Susquehanna Road, when you went with it in 1894 was transporting coal from the mine in the Lackawanna region down to New York harbor, was it not? A. You are correct.

Q. What proportion of its business was such transportation of anthracite coal? A. I have no figures to give you on that?

Q. Who were its competitors in the transportation of coal from that region to New York harbor, what road? A. From the anthracite region?

Q. Yes. A. Competitors in the coal business would be the Lehigh Valley, the D., L. & W., and the Central Railroad of New Jersey.

Q. How about the Erie? A. The Erie when I went with the New York, Susquehanna and Western was not in the coal regions.

Q. Was not coal being transported over the lines of the Erie and brought here and sold at tidewater? A. It might have been brought here, but they did not reach the coal lands then.

Q. I am not asking you that; but was not coal being transported from the coal regions by way of the rails of the Erie Railroad to tidewater, New York? A. In part; yes, sir. I cannot say they were, whether they went to tidewater or not. I do not know whether they were handling coal at tidewater.

Q. You do not know? A. I do not know.

Q. You do not know that the Delaware and Hudson Company had a contract with the Erie Railroad as far back as 1885? A. No, sir; I do not know.

Q. Under which the Erie Railroad brought to tidewater at New York more than a million tons of coal every year? A. No; I do not know it.

Q. Why do you say that the Susquehanna Road was in competition with the Lehigh Valley Road for the transportation of coal? A. No more than the mere fact of their running out of the same territory. Not from the mines, but from the territory as a whole.

Q. Did you have anything to do, or did you have any acquaintance with the mines which were served by the Susquehanna Road when you went with it in 1894? A. Not particularly.

Q. Do you not know, as matter of fact, that each year that the coal carrying business of the Susquehanna Railroad increased after 1894 as long as you stayed with it? A. No, sir; I don't know it. Mine was a nominal position so far as the coal business was concerned. I did not keep any data of the coal tonnage or the sales or anything connected with the accounting features of it.

Q. What proportion of the road's business was the carrying of anthracite coal when you went with it in 1894? A. I do not know.

Q. Its other business was very small, was it not? A. I have no figures on it at all. I answered that a while ago, I have no figures on it at all. I do not know.

Q. Do you not know that excluding this anthracite coal business the business of the Susquehanna Road in 1894 was small? A. I have no figures on that at all.

Q. Excluding figures, do you not know it as a matter of fact? You were the freight agent? A. As freight agent I did not handle the tonnage of coal. I really do not know what the proportion of the two were. Ordinarily, in a general way, I would say that the coal was very much larger than the freight business.

Q. Was not the other business small? A. I have answered that when I say the coal business was very much larger.

Q. Were you with the Susquehanna Road when it acquired these Edgewater terminals? A. No, sir.

Q. Were they used for any purpose except for the handling of anthracite coal? A. There was some merchandise freight handled through the water terminals; yes.

Q. But that was small? A. Very small.

Q. Most of your freight went to the Pennsylvania Railroad terminals? A. Yes.

Q. When was Edgewater brought within what are called the towing limits of the New York harbor? A. I think about 1897, as near as I can recollect.

Q. That was prior to the time the Erie acquired control of the Susquehanna road? A. Yes, sir.

Q. Having brought that terminal into the towing limits of New York harbor, the lighterage privileges there were the same as any other tide point within the harbor limits, were they not? A. Yes, sir.

Q. So the Susquehanna had as good opportunity to deliver coal in New York harbor at that time as any other road? A. I do not know under what terms and conditions coal was delivered in New York harbor. Coal was not the subject of lighterage in the same manner that ordinary freight was, and I had nothing to do with the handling of coal in the harbor.

Q. So far as ordinary freight was concerned, though, you could deliver it as favorably as anybody else on the harbor after it came into the harbor lighterage limit? A. Yes, sir. So far as the physical movement was concerned.

Q. Did the business of the Susquehanna Railroad, freight and passenger business steadily increase in 1894 up to July 1st, 1898? A. Yes, sir.

Q. All along its lines? A. Yes, sir. I am not including coal in that answer, you understand. I do not know about the coal.

Q. Why was this Susquehanna connecting railroad constructed up in the coal regions? A. I really do not know, excepting I presume to save the cost of lateral charges in getting the coal from the different mines to its main line. I presume that was the reason of it.

Q. To increase the traffic in coals carried from that region into tidewater, was it not? A. I do not know whether it increased the traffic or not. Apparently it reduced the cost of getting the coal from the collieries to the Susquehanna main line.

Q. Could the Susquehanna even before that road was built get coal from any of these mines up in the Lackawanna region? A. Some of the mines; yes, sir; through the tracks of the New Jersey Central, through the tracks of the Delaware and Hudson and the Lehigh Valley it could have reached them.

Q. The New York Susquehanna even before that road was constructed, connected with the tracks of the New Jersey Central and with the Delaware and Hudson, did it not? A. Yes, sir.

Q. And those tracks connected with most of the mines in the Lackawanna region, did they not? A. No; not most of the mines.

Q. Many of them? A. Many of them.

Q. Who sells the coals now that move over the Susquehanna road? A. I do not know.

Q. Do you know now who the agent is through whom

it was sold? A. I presume Williams and Peters, but I do not know.

Q. Who would know about that? A. I presume the assistant general freight agent in charge of the coal traffic.

Q. Do you know anything about the arrangement which exists between the Delaware and Hudson Company and the Erie Railroad for the transportation of the Delaware and Hudson coals to tidewater? A. I have no knowledge of the coal business of the Erie Railroad to-day. I have no connection with it. I have no connection with it at all.

Q. You did have up to the first of April? A. No; my duties as division freight agent did not give me anything to do with coal traffic.

Q. Is the coal traffic an altogether separate and distinct thing from the other traffics on the Susquehanna Road and on the Erie Road? A. Yes, sir.

Q. As freight superintendent of the Susquehanna Road did you have anything to do with making freight rates? A. Yes, sir; as I explained in the early part if my testimony, I made the tariffs. So far as making the rates were concerned, I was instructed what rates to insert in the tariffs that I was instructed to make. I really did not make the rates, I simply prepared the tariffs on figures furnished.

Q. You mean on all commodities? A. On coal.

Q. I was asking you about other things, too. A. Excuse me. I thought you meant on coal exclusively.

Q. As the freight agent of the Susquehanna Road did you have anything to do with making freight rates? A. Yes, sir; I did.

Q. And you had much to do with making freight rates, except on anthracite coal? A. Yes, sir.

Q. But with the latter you had nothing to do? A. Practically nothing to do. Simply made them on the figures furnished me.

Q. Who furnished you those figures? A. Furnished me from the vice-president's office.

Q. And those figures which were furnished you by the vice-president's office you inserted in your tariff sheet? A. Yes, sir.

Q. Was that same practice adopted by the Erie while you were with it? A. I do not know. I did not make any coal tariffs while I was with the Erie.

Q. Did you have anything to do with making freight rates on any products while you were with the Erie? A. Yes, sir.

Q. Did your power extend to making freight rates on everything except anthracite coal while you were with the Erie? A. Generally speaking, yes, sir.

Q. Who gave you the coal rates while you were with the Erie? A. Nobody. I didn't have any.

Q. Were they not put in your tariff sheets? A. No, sir; I did not have anything to do with it.

Q. Did not your road publish a tariff sheet showing the rates? A. Not through me. I did not publish any tariff sheets. That was done through the general freight agent. I was division freight agent, not chief. I made rates and tariff, but they are issued through the general freight office.

Q. As to the coal you had nothing to do with that while you were with the Erie? A. No, sir.

Q. Why did your powers extend to all commodities excepting anthracite coal? A. I do not know.

Q. You have no explanation of it? A. I have no explanation to give of it.

Q. It is merely a fact, that you do not know how to explain? A. I do not know how to explain it to you, because I was never authority on coal rates.

Q. Did the Susquehanna Road have any joint freight rates while you were with it on anthracite coal? A. I think we had some joint rates on some New England line. I think with the New Haven Road and the Central New England.

Q. Where did you get coal from them? A. I was speaking of coal tariffs from our lines to those roads.

Q. You had no joint tariffs with any road that reached to the coal fields? A. Coal tariffs?

Q. Yes. A. That reached to the coal fields?

Q. I asked you if you had any joint tariffs with any roads that reached to the coal fields? A. Joint tariff on the coal did I understand you?

Q. Yes. I am talking about anthracite coal. A. No. Not to my knowledge. We had no coal tariffs reaching to the coal fields.

Q. How did you get coals from mines in the coal fields which your tracks did not reach? You said a while ago you got some of it from the D. and H., did you not? A. Yes, sir.

Q. And the Central of New Jersey? A. Yes, sir.

Q. Did you have a joint rate with these roads? A. In those days the Delaware and Hudson, if I remember it correctly, made an arbitrary charge for moving of the coal up to the junction with the New York, Susquehanna and Western, and, I think, in some instances the New York, Susquehanna and Western had trackage right over the Delaware and Hudson, over the Jersey Central and over the Lehigh Valley, and the rates were published by the New York, Susquehanna and Western including the charges of such lines for their charges up to us or our trackage over their road.

Q. When the D. and H. made an arbitrary charge for delivering coals to you at the point where its tracks crossed the Susquehanna tracks how much was that arbitrary charge? A. I do not recall.

Q. Was it not fifteen cents a ton? A. I do not recall it.

Q. You do not know anything about it at all? A. I do not recall it at all. I cannot remember, it is too long ago.

Q. Have you not got any idea how much it was? A. No, sir. I have had too many figures in my mind to recollect those figures. I have not any idea at all.

Q. So between 1894 and 1898, the Susquehanna road was transporting coal from mines located on the lines of the Central Railroad of New Jersey, of the Delaware and Hudson and of the Lehigh Valley in the Wyoming region on through bills of lading to New York harbor? A. So far as I know, yes. I think you are right.

By JUDGE MOOT:

Q. Through bills of lading? A. I do not know what you mean by bills of lading, but on through manifests.

By MR. MCREYNOLDS:

Q. On through shipping receipts of some character, whatever you may call them? A. Yes, sir.

Q. What was the rate? A. I do not know. The rates varied at different times. Somewhere in the neighborhood of a dollar and sixty-five or a dollar and eighty-five cents —within that.

Q. Were they the same as the rates over the Erie? A. I think they were; yes, sir.

Q. The same as the rates over the Delaware, Lackawanna and Western? A. I think so.

Q. The same as the rates over all the different roads that led from that region to tide? A. Yes, sir.

Q. Who were the vice-presidents of the Susquehanna road just prior to July 1st, 1908? A. Roswell Eldridge.

Q. How long had he been the vice-president? Some years? A. Not a great while, no. Not very long. Prior to his administration was F. P. Moore.

Q. Is Mr. Hopkins who was president then, still living? A. I am rather under the impression that he died within the last year or so.

Q. Is Mr. Eldridge still living? A. He is.

Q. Where? A. I do not know his address.

Q. From 1894 to 1898 were the freight rates from Middletown to New York over the Susquehanna road the same as those over the Erie road? A. Yes, sir.

Q. Was that true as to Passaic and to Paterson, New Jersey and New York harbor? A. Yes, sir.

Q. While you were the freight agent of the Susquehanna road you were trying to get all the freight you could to carry, were you not? A. Yes, sir.

Q. You were building it up gradually from year to year? A. Yes, sir.

Q. And the road was increasing in importance and amount of freight which it carried? A. Yes, sir.

Q. The same is true of the passenger trafic? A. Yes, sir.

Re-direct examination.

By JUDGE MOOT:

Q. You could not get more for carrying freight from Middletown or Passaic or Paterson than the Erie got? A. No, sir.

Q. Did you try to get more freight by making a rate lower than the Erie at those points ? A. Not as a general proposition; no.

Q. When you did, as an exception, how did you succeed? A. We could probably hold it for a short time until our competitors found out what we were doing and they would simply meet the situation and take the business back again.

Q. This matter of billing. Did you have anything to do with billing or manifesting the coal? A. Nothing whatever; no, sir.

Q. Or with making the arrangements for handling the coal in any way? A. Nothing whatever.

Q. Do you know whether the coal was manifested or billed from the mines, or what the billing point was? A. During that time the billing point was, as I remember it, at Stroudsburg, but the billing showed the mine that the coal came from. The billing was all done at Stroudsburg.

Q. By billing you mean some kind of manifest or something of that kind? A. Yes, sir; manifest that accompanied the cars to destination was made at Stroudsburg, but with a notation showing the name of the colliery from which the coal was shipped.

Q. Coal was carried from some colliery or another how-on a memorandum until it got to Stroudsburg? A. On a mere memorandum made at the mine. I think it was a weigh slip, as I remember, that accompanied the car.

Q. Just a mere weigh slip? A. Just a little weigh slip, and the billing representative or agent at Stroudsburg had instructions as to the disposition that was to be made of this coal, and he billed it out accordingly. In other words, he took these waybills, and from them he made out the manifest from Stroudsburg to wherever it went.

Q. That is your observation and recollection of that point? A. That is my recollection; yes, sir.

Q. So far as the Delaware and Hudson or any other company was concerned that brought coal to the Susquehanna, while you understood they got paid for doing that, you do not remember how much it was they were paid? A. I do not remember it and in some cases I did not know it. The arrangements were made through the general office without my knowledge.

Q. Whether they got the same prices as other companies or whether they got different prices you do not know? A. I do not know.

Q. Do you know whether the company rendered bills for that, or whether they were paid cash or how the business was done? A. No; I do not know the method of settlement at all.

Q. You did not have to do with that? A. No, sir; it did not come within my jurisdiction whatever.

Q. Not being a mind reader, you are not able to say why the executives running these railroads kept the coal departments separate from the other departments? A. That is what I wanted to convey, I do not know the reason of it.

Judge Moot stated that he desired an adjournment until Wednesday next (April 14th) at 10.30 A. M., to meet at the same place.

Mr. McReynolds stated that the Government was ready to proceed with the examination of witnesses this afternoon and to-morrow.

JUDGE MOOT:—It is Friday afternoon at 4.25. I have to take a train home, and I do not want to go on, as the counsel for the Government has notified us of a motion in Court at Philadelphia on Monday at ten o'clock.

MR. MCREYNOLDS:—The Government's counsel is ready to proceed with the examination of witnesses the rest of this afternoon and to-morrow.

The meeting adjourned to meet at the Astor House, New York, on Wednesday, April 14th, 1909, at 10.30 A. M.

Met pursuant to adjournment Wednesday, April 14th, 1909, 10,30 A. M., at the Astor House, New York City.

Present—The Examiner; Counsel present—Messrs. McReynolds, Todd, Moot, Warren, Platt, Schapperkotter.

CAPTAIN W. A. MAY, having been duly sworn, was examined as follows:—

By JUDGE MOOT:

Q. Please give your age, occupation and residence. A. I am 58 years old; live in Scranton, Pennsylvania; I am general manager of the Hillside Coal and Iron Company, Pennsylvania Coal Company, New York, Susquehanna and Western Coal Company, Northwestern Mining Exchange Coal Company, and Blossburg Coal Company.

Q. How long have you been superintendent of each of those companies? A. Superintendent?

Q. Yes. A. I was superintendent of the Hillside Coal and Iron Company from 1883 until 1901. I was superintendent of the New York, Susquehanna and Western Coal Company from 1898 to 1901. I became general manager of those two companies in 1901, of the Pennsylvania Coal Company at the same time, and became general manager of the two other companies January, 1908.

Q. You were educated for what profession? A. Civil and mining engineer.

Q. At what college? A. Lafayette College.

Q. Easton, Pennsylvania? A. Easton, Pennsylvania.

Q. You have been connected with this coal mining business how many years? A. I first began in 1873.

Q. That was before you graduated from college? A. Yes, sir.

Q. When were you graduated from college? A. 1876.

Q. Then you began in this mining business to help yourself through college, I assume? A. Yes, sir.

Q. Have you been connected with the mining business ever since? A. Yes, sir, continuously.

Q. This Blossburg Coal Company is a bituminous coal company? A. It is a bituminous company.

Q. It is about how far away from the anthracite regions? A. In a straight line, about sixty miles, I should say.

Q. As you have to go there, you go in what way? A. I go to Elmira and then south from Elmira to Blossburg, and then to Arnot, where the principal mine is located.

Q. That Blossburg Company is a company in which the Erie is a stockholder, is it? A. I do not know.

Q. How long have you been connected with this bituminous operation? A. That is, any bituminous operation?

Q. No, that one. A. That one, officially, I was connected with January 1st, 1908.

Q. Were you connected with it in any way up to that time? A. I visited it under a former general manager, when he was ill; but I was then superintendent of the Hillside Coal and Iron Company.

Q. Have you had any other connection with any other bituminous coal mining operation? A. Yes, sir, Northwestern Mining Exchange Coal Company.

Q. Where is that located? A. In Elk, Jefferson and Clearfield Counties.

Q. About how far away from Scranton? A. Two hundred and fifty miles.

Q. How do you go from Scranton to get there? A. Go to Sunbury and from Sunbury to Ridgeway; that is the way I usually go, and then south to Dubois. Dubois is headquarters.

Q. Over what railways? A. Over the Pennsylvania, mainly.

Q. When you went to Blossburg you went over the Erie? A. Delaware, Lackawanna and Western.

Q. Delaware, Lackawanna and Western? A. Yes, sir, and then over the Erie from Elmyra, the Tioga Division of the Erie.

Q. That Northwestern Company you say you have been connected with in any way, shape or form, about

how long? A. I was connected with that before I became superintendent of the Hillside. I was mining engineer for both the Hillside Coal and Iron Company and the Northwestern Mining Exchange Coal Company from 1876 until 1883, and I opened up what is now known as Toby No. 3, and the Kyler opening, which was then known as Dagus No. 1.

Q. Have you been connected with that Northwestern Exchange Mining Company from the day you first became connected with it down to the present time? A. No, sir.

Q. There was a time you were disconnected from it? A. Yes, sir.

Q. That was during what period? A. From 1883 until January 1st, 1908.

Q. Do you know whether the Erie has any connection with the operation as a stockholder or otherwise, in any way? A. I do not know.

Q. It has not any that you know of? A. Not that I know of.

Q. Has it any connection with the Blossburg operation that you know of, as a stockholder or otherwise? A. I do not know.

Q. Are you interested in either of those bituminous operations personally, or are you simply interested in them officially? A. I am merely interested officially.

Q. As a mining engineer? A. As general manager.

Q. I mean, in your capacity of a mining engineer it is that they want you, I suppose? A. I have charge of their operations.

Q. It is something more than mere mining, I appreciate; but, I suppose, it is because of your mining experience that they want you? A. I presume so.

Q. A few words about these two bituminous operations. This Blossburg operation is an operation of one mine? A. No, they have a group of mines at Arnot, really only one operation, and then they have an operation at Bear Run.

Q. Practically two operations? A. Practically two operations.

Q. How far from each other? A. I should say seven or eight miles; I do not know exactly.

Q. Producing bituminous coal of what quality, broadly and generally? A. It is a good quality, a semi-bituminous coal.

Q. By semi-bituminous you mean that it has some of the qualities of what, besides bituminous? A. It has more of what we call the fixed carbon than a purely bituminous coal has, and less of the hydro-carbons.

Q. It is somewhere between an anthracite and a bituminous, is it? A. It would be closer to a bituminous than to an anthracite.

Q. But it moves from the bituminous toward the anthracite? A. That is it, yes, sir.

Q. The anthracite coal, I suppose, is what you might call an old, or crystallized bituminous? A. An anthracite is a bituminous squeezed together.

Q. With the juice squeezed out of it, so to speak? A. That is right, or evaporated out of it.

Q. So it does not burn as readily or inflame as quickly as the bituminous does? A. No, sir.

Q. Generally speaking, I suppose, ton for ton, the bituminous, that is of a good quality, will produce a little more steam than the anthracite will? A. It will produce steam more quickly, because it flames.

Q. Whether it will produce more or not? A. That is right, whether it will produce more or not.

Q. Are there any other operations at Blossburg except those two with which you are connected? A. These lie to the west of Blossburg, and then there were two operations lying to the east of Blossburg one only being an operation now, I understand.

Q. Is that a large field at Blossburg, or is it a comparatively small coal field? A. A comparatively small field.

Q. Is it in touch, so to speak, with the other bituminous

coal fields further west in Pennsylvania, or is it a sort of isolated bituminous field? A. It is an isolated field.

Q. In going to that field from Elmira to the south, do you reach it by going along a comparatively level line of railroad, or do you have to cross some hills or mountain ranges? A. Cross a summit.

Q. How much of a summit is it? A. That I could not tell you; that would only be hearsay. I do not know the height, but it is quite a difficult hill to get over.

Q. About what number of tons, year by year, are these operations which you are connected with producing there? A. You mean at Blossburg?

Q. Yes. A. Between 250,000 and 300,000 tons a year.

Q. The whole Blossburg field, at a maximum, produced about how much when it was at its height, if you know? A. I do not know.

Q. This coal that is produced there at Blossburg is suitable for what purposes and is used for what purposes in a general way? A. We are using it for steam purposes mostly; some of it is used for blacksmith purposes.

Q. When you say "we," you mean the Erie Railroad is using it for steam purposes? A. I should not say we use it, I should say we sell it for that purpose, we dispose of it for that purpose.

Q. Who are the purchasers? Mainly railroads, or what? A. The railroad companies buy the coal for locomotive purposes, and then it is sent to various points for blacksmithing purposes.

Q. That is what that is mainly used for? A. Yes, sir.

Q. Now the Clearfield operation, the Northwestern Mining Exchange which you are identified with; is that more than one mine A. Yes, sir.

Q. About how many mines is that? A. Six.

Q. Those six mines are producing approximately how many tons a year? A. They are running now at the rate of a million and a quarter tons a year.

Q. They have been running at about that rate for about how long? A. They are really only getting up to that capacity now. If I had known I was going to be asked

these questions, I would have looked up the figures; but I think it was 1,100,000 last year.

Q. Has this panic of 1907 affected their production one way or the other so far, so far as you have noticed? A. No, sir.

Q. The coal is what kind? A. That is a bituminous coal.

Q. And is used for what purposes? A. For railroad purposes almost altogether.

Q. As fuel for locomotives? A. Yes, sir.

Q. By what railways? A. By the Erie road.

Q. Does the Erie road also use this Blossburg coal mostly? A. Yes, sir.

Q. How does the Erie get the coal from the Northwestern Exchange to its lines? A. It does not connect there, does it? A. It hauls it to its main line over the Toby branch of the Erie, and then over the Buffalo, Rochester and Pittsburgh for the mines lying in the Toby Valley, and for the Eriton mine lying near Dubois, it runs it over the Eriton branch of the Buffalo, Rochester and Pittsburgh, and it is transferred to the Erie road at Jewett.

Q. A distance of about how many miles from the mines? A. I could not tell you.

Q. Of course, you need not tell me accurately, but approximately? A. It must be forty or fifty miles. I have gone over it a good many times.

Q. I suppose you have nothing to do with the marketing of that coal and could not tell me approximately what the railroads have to pay for that coal at the mines? A. I have nothing—the orders are sent to the mines by the authorities here in New York, and we ship it out. I get a statement of what they pay for it, and in that way I know.

Q. About what does that Clearfield coal sell for at the mines? A. One dollar a ton.

Q. Is that run of mine, as they call it? A. Run of mine.

Q. Just as it comes from the mine? A. Yes, sir.

Q. Without preparation? A. Without preparation.

Q. This Blossburg coal, do you know about what that sells for at the mines? A. About one dollar and fifty cents.

Q. Just as it comes from the mine without preparation? A. Just as it comes from the mines.

Q. Why does the Blossburg coal sell for more? Is it better, or is there some other reason, nearer market, or what is it? A. It is more expensive to mine; could not be mined, could not be put on cars for one dollar a ton.

Q. Do you know whether intrinsically it is any better than the Clearfield coal that you mine or not? A. Not for steam purposes.

Q. Not for steam purposes? A. But for blacksmith purposes, it is much better.

Q. Is there any difference between those bituminous operations, or the bituminous operation and the semi-bituminous operation, as to difficulty of mining or anything of that character? A. Oh, yes, the Blossburg coal is much more expensive to mine because of the thinness of the seam and the impurities in it.

Q. The seam there is a seam of about what dimensions? A. It varies greatly. I measured it in one of those places not long ago and I can give you almost the exact figures. (Referring to notebook.) "Cross section September 9, 1908. #2 lift, #8 drift, Blossburg. Bottom bench 13 inches of coal; middle rock, 13 inches of shale; coal poor 7 inches; total 33 inches. In vein main entry, about ready for third lift, bottom bench 15 inches of coal, middle rock 11 inches, top coal 7 inches; total 33 inches."

Q. That gives an idea of the veins and their character that are being worked there? A. That gives you some idea of what they have to contend with.

Q. You said that was sold run of mine without preparation; I assume that that rock in between the two seams of coal, as I understand your figures, is readily separated from the coal as it is taken out? A. Comparatively speaking, it is separated—it must be separated.

Q. I assume there is a cleavage between the rock and the coal? A. Yes, that is as I recall it.

Q. Down in Clearfield, can you tell me about what the seam is there? A. The seam there is from a thickness, in the Toby Valley of from two feet eight inches to three feet and a half, and increases in thickness as you go down the valley, and when you reach the vicinity of Dubois, which is further to the southwest, to about five feet and a half or five feet eight inches, as nearly as I recall it.

Q. Is that which you have pure coal or what? A. It is pure coal, comparatively speaking.

Q. How does it compare in quality with bituminous coal such as we find in the market here in New York or the east? A. It is good coal.

Q. It is not what they call coking coal, though? A. No; it is not coking coal.

(At this point, Mr. Platt, representing the Lehigh Valley Railroad Company and Lehigh Valley Coal Company, asked to make a statement to be inserted at the close of the day's proceedings, so as not to interfere with the testimony of the witness, which was assented to. See statement at the close of this day's proceedings.)

(Last question and answer read.)

THE WITNESS: I ought to change that answer, because the Eriton coal can be coked. I did not think of that before.

Q. The bulk of it is not coking coal? A. That in the Toby Valley is not coking coal.

Q. That is the larger amount, is it not? A. No, I would say it is about a half, as near as I can come.

Q. Is the other coal that will coke a good coking coal, as good as Connellsville, for instance? A. No, it is not as good as Connellsville.

Q. How is this coal generally in the Clearfield or Northwestern Mining Exchange coal there, all that coal, as to being difficult or easy of mining? A. The coal in the Toby Valley is more difficult to mine than that in the vicinity of Dubois at Eriton. The seams in the Toby Valley are thinner, they are more irregular, and the coal itself is harder, and for those reasons the coal in the Toby Valley is more expensive than in Eriton, near Dubois.

Q. Speaking broadly of Blossburg and of the Northwestern Exchange mines, the range in cost of mining would be how many cents a ton from the most expensive mining at Blossburg of any moment, to the cheapest mining in the Northwestern Exchange mines of any amount? A. I would say about sixty cents, from fifty to sixty cents. I want to qualify that by saying that in the Blossburg region we do not mine by machine and at Eriton we use machines in mining. That would have a tendency to make the cost less, as well as the physical conditions.

Q. Would it be practicable to use machines at Blossburg? A. No, sir, not as machines are now made.

Q. Then in the mining of bituminous coal, there is a variation in the cost of mining, and that variation depends generally upon what facts, according to your experience and observation? A. The thickness of the seams; the impurities in the seams themselves; the character of the coal; the character of the ground; the location and situation and lay of the mines; the amount of water you have to contend with; the gases which you meet, and other things.

Q. Comparing bituminous mining generally and anthracite mining generally, the difficulty and expense of a mining operation is in favor of or against which type of mining? A. It is against the anthracite.

Q. Why? A. Because the physical conditions, generally speaking, that is, at the present time, are not as favorable, and then we prepare the coal in the anthracite. The anthracite, as it is mined, is a raw material; as it is sent to market it is a manufactured article, and, of course, the process costs money.

Q. Have you any idea of about what the range of cost of turning that raw material into a manuactured article is? Of course, I assume it differs, but I mean the minimum and the maximum. A. It runs from fifteen cents to twenty-five cents a ton.

Q. Does that fifteen cents to twenty-five cents a ton cover anything on capital account for breakers and all that, or is that just the bare operating cost, your help and fuel, and so forth, to run the breakers and machinery to make that manufactured article? A. Just operating cost.

Q. Independent of anything for capital? A. There is no capital in that.

Q. Have you ever observed to see which of the railway companies burn anthracite instead of bituminous for fuel for their engines, or have you never paid any attention to that? A. I have noticed it as I have travelled, that is about the only attention I have given to it.

Q. Thus you have noticed that what companies do use anthracite as fuel supply for their engines? A. The Delaware, Lackawanna and Western; the Erie uses some, because we ship it to them. As to other companies, I do not know whether they use it or not.

Q. In the main, the Erie uses bituminous? A. Mostly.

Q. The Lackawanna, did you ever observe that they they used bituminous at all? A. Yes, sir.

Q. They do use some? A. I have noticed it, especially on their western divisions, or rather maybe one division, on the western part of their road.

Q. Do you know, or is that outside of your range of knowledge, what considerations control in determining whether they will use anthracite or bituminous for their engines? A. I do not know.

Q. What type of anthracite is used as fuel supply for these engines, so far as you have observed? A. They use lump coal; use some egg coal; use pea coal and the smaller sizes, smaller that pea.

Q. How is it, so far as you have observed; is the anthracite which they use for their engines mostly sizes smaller that pea or is it larger sizes? A. You are speaking of the Delaware, Lackawanna and Western?

Q. Of the Delaware, Lackawanna and Western and Erie, each. A. The Erie uses mostly the smaller sizes.

Q. Smaller than pea? A. Pea and smaller. We ship some lump coal, but very little. It is mostly the pea and the smaller sizes that we ship them.

Q. How about the Delaware, Lackawanna and Western, so far as you have observed? A. I have seen lump

coal, egg coal and pea coal; I do not recall that I saw anything smaller than pea coal.

Q. The lump anthracite that you speak of having seen used by both the Delaware, Lackawanna and Western and the Erie, that would be the anthracite coal as it comes from the mines without preparation? A. The lump coal?

Q. Yes. A. It is run over bars at the head of the breaker, and the lumps going over the bars is what we call lump coal; but that is not strictly a preparation.

Q. It is just what you might call a sifting? A. That is it; the preparation comes when we break those lumps down and when we take the part that goes through the bars and send it to the slate pickers and to the rolls and the shakers and jigs.

Q. So that the lump coal, as you call it, if you were able to sell the anthracite as lump coal, then you would be able to save this expense of from fifteen cents to twenty-five cents a ton and would be able to sell it that much cheaper in the market? A. Oh, yes.

Q. Are the locomotive engines able to use this bituminous coal that comes from the mines at Blossburg and the Northwestern Exchange mines, as run of mine coal? Are they able to use that coal as it comes from the mines, or do the railway companies, or the engines, have to do something to it before they begin to burn it as fuel? A. They use it just as it comes from the mines.

Q. Fill their tenders and go ahead? A. That is as I understand it, because we ship it that way.

Q. When you get into the anthracite region, how much of the anthracite coal regions are you familiar with? A. I am familiar with the Lackawanna region and part of the Wyoming region, that is very familiar; and I have made occasional visits in the Lehigh and the Schuylkill regions.

Q. You are familiar with the geology of all the anthracite region, so to speak, in a broad way? A. In a broad way, yes; but I am very familiar with the Lackawanna region and the Wyoming region.

Q. That Lackawanna region, as I understand it, is a region lying under and on either side of the Lackawanna River, which is a branch of the Susquehanna River, that empties into the Susquehanna River at a point below Scranton; am I right? A. Yes, sir; empties in at Pittston.

Q. That is about how far southerly from Scranton? A. About ten miles.

Q. While the upper region there is all what you might call, in a geological sense, part of the Wyoming Valley, for geographic purposes in that region the people speak of the part along the Lackawanna Valley as the Lackawanna region? A. Yes, sir.

Q. That Wyoming region, so-called, is the Wyoming Valley where the Wyoming massacre occurred about the time of the Revolution? A. Yes, sir.

Q. About where did that occur, just by way of interest? A. It took place near a little town called Wyoming.

Q. Which is near what place? A. It is between Pittston and Wilkes-Barre and across the river from our No. 14, our Pennsylvania colliery No. 14.

Q. Is the spot to be identified now? A. There is a monument there.

Q. There is a monument there? A. Yes, sir.

Q. Who owns the land there now? A. We own the farm—that is, the Pennsylvania Coal Company owns the farm, called the "Monument Farm."

Q. On which this monument is? A. That is as I understand it.

Q. Can you describe, in a brief, general way, the geological situation there of the anthracite deposits in the three regions, differentiating the three if you can, and, if you cannot, describing all three as one? A. The Lackawanna and Wyoming region, as the maps show, is shaped like a canoe, running from the northeast to the southwest and that region, calling it one region, is crossed by a number of anticlinals. The direction of the canoe—I said northeast by southwest—is about north forty-five east, south forty-five west. These anticlinals

cross the region about south eighty west, cutting the region up into a series of basins like, with synclinals and with anticlinals running all the way down. You will find, beginning at the top, barren measures——

Q. Beginning at the top; that is the northeast? A. I mean the northeast end, yes. There will be, throughout the entire region, barren measures, faulty measures. One piece of territory may be a very valuable piece and the one alongside of it may be very poor, because of physical reasons, geological reasons. The coal, of course, lies in seams, as all of you know, and there are six, eight, or ten different seams. Beginning at the bottom, we know the bottom as the Red Ash, which splits oftentimes into three different seams. The one next above that is the Clark, and the one next above that is the New County; the one above that is the Diamond and the next is the Rock. Those are the principal seams up in our section.

Q. Let me see if I understand clearly. These seams do not run lengthwise of the valley at all? A. No, they do not run——

Q. But they cut the valley on what I might call the bias? A. That is right. Then I should say that, on the eastern side, or southeastern side, the pitch may be from four to eight or ten degrees in that part of the region, and increases somewhat until, down in the vicinity of Nanticoke and Wilkes-Barre, the pitch will go up to twenty-five or thirty degrees. On the northwestern rise, the pitch is heavier than it is on the eastern. I am talking about those bias pieces that you are speaking of. The pitch of that side will be from ten—from fifteen to thirty degrees, running to forty degrees; and these seams vary in thickness, not only one seam at different places compared with itself, but the various seams vary in thickness. The big seam is the one we call "Big," or the "Fourteen" or the "Pittston" or the "Baltimore." Those are names of one seam.

Q. That was a seam of about how big? A. Where it is together, I mean the benches are together, that usually runs

from fourteen to twenty feet thick; but in many places it splits into, some places two and some places three different splits and that, of course, makes it much smaller. Down in the Schuylkill region it is as much as forty, fifty or sixty feet thick in places.

Q. That same seam? A. That same seam. We call it the "Mammoth" down there.

Q. Is it found in the middle region at all? A. You mean in the Lehigh region?

Q. Yes. A. I do not know it there. It may be there, but I do not know it there

Q. That big vein you speak of being split once and sometimes twice in the Wyoming Valley, you mean by that that a strip of slate or rock separates it into two or three veins, as the case may be? A. Yes sir; there are strata between them. It may run from two feet thick up to ten or twenty feet thick in the Red Ash seam; that is the one underneath. That splits also into three different splits and in places there are sixty feet of strata between ——

Q. Between the splits? A. Between the splits; but still, we consider it the same seam of coal.

Q. That fourteen foot vein of the Wyoming region, running bias across the valley so to speak, was about how many miles long? A. That big vein?

Q. Yes. A. It is very hard to put it that way, because it does not run—I mean in the sense you mean, because it cuts out so often. It runs from the neighborhood of Jermyn, where we call it the Grassy Island vein, down to Nanticoke, but it will not be the thickest.

Q. That distance, in which it pinches out and comes back, so to speak, and sometimes separates and sometimes comes back as I understand you—is that right? A. That is right.

Q. That distance from the Jermyn, where it is called the Grassy Island, down to Nanticoke—where it is called what? A. There it is called the Fourteen Foot, I think we call it.

Q. Down there, that is a distance of about how many miles, having all these variations you speak of? A. It is forty miles.

Q. In Luzerne County, Mr. Warren calls my atten-

tion —— A. Excuse me, it is called the Baltimore Vein down there.

Q. In Luzerne County it is called the Baltimore. A. Yes, sir.

Q. You mean the Baltimore is one of its names? A. Yes, sir.

Q. Generally speaking, is there anything left of that Big vein you have been telling us about in the main, or has that been mined out pretty generally? A. Pretty generally mined out.

Q. That was a pretty profitable vein? A. A beautiful vein.

Q. It was a beautiful vein? A. Yes, sir.

Q. That was a vein out of which these miners in years gone by made money? A. Oh, they could make money. Of course, the price they received then is not as good as the price received now.

Q. The mining cost was not the same either then? A. No, not by any means.

Q. And then they were able to mine that vein largely as lump coal? A. They could, yes.

Q. Now they cannot mine as lump coal any to speak of? A. No, sir.

Q. So they had a lower mining cost, they had a better vein to mine, they could save the cost of preparation, and they had more coal to take out at one spot at that time than now—they had all those advantages in working that vein. A. Oh, yes. I wish I had the Fourteen.

MR. MCREYNOLDS: The Government objects to this whole line of examination. The details of coal mining are not involved in this controversy, and the facts throw no light on the issue.

JUDGE MOOT: If the Government counsel will strike out all he has in his case from 1876 down to 1896 about coal mining and everything else, I shall be very glad to omit all this testimony.

By JUDGE MOOT:

Q. What mines located in the Wyoming region to-day are working on that big Fourteen Foot vein, or have been

in the last few years, so far as you know, to any extent? A. I do not know of any operation to-day that is working exclusively the Fourteen Foot vein. We are working some solid of the Fourteen Foot in connection with coal from the Marcy part and the Red Ash, at some of our operations.

Q. The Marcy, Clark and Red Ash are operations of what company? A. Those are seams of coal.

Q. Of what company? A. The Pennsylvania Coal Company.

Q. They are connected with mines of the Pennsylvania Coal Company? A. Yes, sir.

Q. When you say the "seams," are any of the mines of the Pennsylvania Company producing any large amount of their coal from the Fourteen Foot vein, any large proportion? A. I should say the production of No. 14 would be a third of it, and from Ewen colliery, I would say about a quarter or one-fifth of it.

Q. Any others? A. No others that I recall just now.

Q. That No. 14 and the Ewen are collieries of the Pennsylvania Company? A. Yes, sir.

Q. Lest I overlook it, are those among the cheapest mines to operate, of that or any other company known to you in the coal regions, because you have Fourteen Foot coal still to mine in those mines? A. They are cheap places, but we have two or three that produce coal cheaper.

Q. Of the Pennsylvania Company? A. Of the Pennsylvania Company; that is as I recall it.

Q. What other mines or companies in the Wyoming region that you have charge of have any appreciable amount of Fourteen Foot coal unmined, that they are mining? A. The Delaware, Lackawanna and Western have some, how much I could not say.

Q. A large proportion or amount, or don't you know? A. I do not know.

Q. Take it back as far as 1903. Was there any large amount of this Fourteen Foot vein still unmined as far back as 1903? A. You mean for the entire region?

Q. For the entire region, so far as you know. A. Much

the larger part was mined prior to that time; that is, as nearly as I know.

Q. You say you became the manager, if I remember correctly, of the Pennsylvania Company in 1901? A. Yes, sir.

Q. At the time you became the manager of that company in 1901, what mines of that company were still taking out any amount of this Fourteen Foot vein? A. It was the same ones that I spoke of a moment ago, No. 14 and Ewen; and No. 6.

Q. Was then taking out some, was it? A. That is right.

Q. Can you give us any idea of the amount of the Fourteen Foot vein of No. 6 of the Pennsylvania Company that was then taken out, the proportion back in 1901, when you took charge of the mine? A. No, I could not.

Q. Was it a large proportion or comparatively small? A. No, comparatively small.

Q. Were any of the mines of the Hillside Company ever on this Fourteen Foot vein? A. The Glenwood had about sixty acres of it.

Q. When was that mined out? About how far back? A. About sixteen years ago.

Q. That was the only one, I infer, of the Hillside collieries that had any of that? A. Yes, that is as I remember it.

Q. Now the New York, Susquehanna and Western Coal Company, did they have any mines on any of the Fourteen Foot vein? A. No, sir.

Q. As I understand you, the Red Ash vein turned out to be the next valuable for mining purposes to the Fourteen Foot vein; is that correct? A. No, sir.

Q. Not the Red Ash? A. No. In some places the Red Ash is a good seam of coal. Other places, the Clark would rank next to the Big vein with us, and then in some places the New County is a good vein of coal.

Q. Take the vein that you think as a whole ranks next to the Big vein, or the Fourteen Foot, or the Baltimore; which would you place next, weighing everything up? A.

North of Taylorville, I would say the Clark, and south of Taylorville, the Red Ash.

Q. The Clark is a vein about how many miles long, and it is, at its best, a vein about how many feet thick? A. From Taylor up to Jermyn; say eighteen miles.

Q. About eighteen miles long? A. Yes.

Q. And running how thick? A. It would run about ten feet thick.

Q. How is that vein as to being a consistent vein, running about that thick, or as to being a vein that pinches out and in and splits? A. In that eighteen miles?

Q. Yes. A. It runs in and out and pinches. It runs in one bench, more so than the Red Ash.

Q. It does not split so often? A. No, and I do not believe it splits so often as the Big vein.

Q. When it pinches out, does it pinch out entirely or pinch to a small vein? A. It pinches down to a small vein, and some places out entirely.

Q. Before you mine that vein then, you take your chances on whether it will pinch out or be a small vein, or do you bore, or how do you determine as to that? A. In the early days we took our chances more than we do now. Now we bore a property quite thoroughly before we put up an operation.

Q. You bore it with a diamond drill? A. Yes, sir.

Q. And thus you find by boring about what sort of rock and coal, and conditions geologically and from a mining standpoint you are going to encounter, before you develop your mine at all? A. Yes, sir.

Q. That Clark vein; how is that as to being mined out, or as to still being a vein on which there are large workings of coal? A. That is pretty well mined out.

Q. How long has the Clark vein been pretty well mined out? A. Within five or six years.

Q. Down to five or six years ago there was considerable of it left? A. Yes, sir.

Q. What mines have you charge of for any of these companies of which you are superintendent, that are still working the Clark vein to any extent? A. Do you

mean north of Taylorville, where I said this vein was ten feet thick?

Q. Yes, we will take it north of Taylorville first. A. It is all worked out with us; that is, at places that we are operating, it is all worked out with us, except the pillars.

Q. Those pillars are coal left in the mine to support the roof, large enough amounts to support the roof until you get through are they not? A. Yes.

Q. When you get through and ready to abandon the mine, then do you remove the pillars as far as possible? A. Yes, sir.

Q. And let the roof take care of itself? Yes, sir.

Q. Those pillars constitute about what percentage of the entire amount of coal in the mine? About thirty per cent.

Q. About thirty per cent? A. Thirty to thirty-three per cent.

Q. Back in the beginning of mining, were those pillars removed, or were they left there when you abandoned a mine? A. They were left there in the early days.

Q. Now are they all removed, or how is that? A. We take all we can get of them.

Q. That is, you remove to the point where it becomes dangerous to life and everything else to try to remove more? A. Yes, sir.

Q. About what proportion of this thirty per cent. can you remove? A. That is very hard to answer.

Q. Of course, it differs, I assume? A. It differs very much. We want to get all of it.

Q. And you do get from what per cent. to what per cent.? I know it is a hard question, but we cannot go in there and we have to take someone's judgment. A. I cannot tell you. I have the figures at home, but I cannot recall them.

Q. Could you not give us the limits from about what to about what? A. I think it is ten per cent.; that is, I mean we think we can win everything but about ten per cent. By that ten per cent. I mean ten per cent. of the seam, not of the pillars.

Q. You have to leave about ten per cent. as a rule? A. Yes.

Q. When you say this vein, or any other vein, is worked out, does that really mean that you do get all the coal out, or that you get all the coal out that it is practicable to get out? A. All that it is practicable to get out.

Q. By practicable, you mean that there are deposits still left of what extent? A. I do not quite understand the question.

Q. I assume that there might be left tons of coal, or even hundreds of tons of coal, in isolated spots in a mine, that you would not take out before you abandon it. That you would not count in saying that the vein was practically worked out, and I assume that there would be some reason why those tons, or even hundreds of tons, were left behind, untouched, when the mine was abandoned. Just tell me whether that assumption is correct or not, and, if it is not, what the fact is and if it is correct, then tell me why it is left at all? A. In saying that we leave ten per cent. in the pillars, or seams rather, as I said a moment ago, that would cover the coal that we leave in the mines, except what we call "gob."

Q. What is gob? A. It is the refuse that the miner throws back when he mines the coal. There is a good deal of the good coal left in the gob. Some places we have taken out the gob and got some coal from it, but the amount I could not tell you, because it went into the general production of the colliery.

Q. I suppose the reason that the gob is left behind in the mine is because labor is so expensive that it costs more to get the coal out than it does to leave it? A. Yes, sir.

Q. In other words, you could not get it out and make any money at it? A. Yes, sir.

Q. Now let us take the next big vein, the Red Ash, I think you said it was after the Clark? A. Yes.

Q. Before we go to the Red Ash, do you know of any mines outside of the mines of your own companies that

are still working on the Clark in the Wyoming region? A. Oh, yes, there are mines. I cannot give you the individual mine, but the Clark is being worked; to what extent, I cannot tell you.

Q. By what company? A. The Delaware, Lackawanna and Western is working it at some places.

Q. Do you think of any other company that is working it? A. Not that I know of.

Q. Now we will take the Red Ash. How much of a vein is the Red Ash as to length, breadth and thickness, so to speak? A. The Red Ash, I know one place where the three benches were practically together, and it was twenty feet thick; but I would say, in three-fourths of the territory, it was split, taking the entire region, and the splits would be from three to four feet and five feet thick, with a varying thickness of strata between them and, of course, with impurities in the vein also.

Q. The Red Ash, while it may be twenty feet thick at some places and while it is split, as you say, into two or three veins, if I understand you, a good deal of the time —is that right? A. Yes, it is split a good deal of the time.

Q. Can you give any better idea of what its general proportions are, as to about how much coal there is in it? It does not run, I assume, twenty feet thick very much of the distance? A. Oh, no. That was only at one operation; that was down at Central, between Scranton and Pittston, where I know it was twenty feet thick. All told there, it would not cover over a thousand or fifteen hundred acres.

Q. Where it was so thick? A. Yes.

Q. But, generally speaking, it runs from what thickness to what thickness? A. It splits and then it is in the thicknesses that I gave you a moment ago.

Q. From three feet to five feet? A. Yes, sir.

Q. Each particular split? A. Yes.

Q. Generally about ten feet for the various splits would compass it? A. It varies from—as I told you before, it runs up as much as sixty feet between some of the splits, sixty feet of strata.

Q. That is about how long? A. You mean the extent of the Red Ash?

Q. Yes. A. It extends over all the territory that I am acquainted with; that is, from below Pittston up to and including Forrest City.

Q. That is a distance of about how many miles? A. About thirty-five miles.

Q. How is that Red Ash vein as to purity, as compared to the Fourteen Foot and the Clark? A. It is a duller coal. It has more cleaverage, there are more cleavages in it, and also vertical partings as we call them. It is not as sightly a coal as either one of the other two, that is, in this region up in the northern part of the Lackawanna region. The Red Ash, in portions of the southerly part of the region that I know, is better than the Clark, quite a good deal better than the Clark, and then, in other parts, it is not nearly as good.

MR. MCREYNOLDS:—If counsel for the defendant will state the purpose of this examination, it may be that the Government will admit it.

JUDGE MOOT: The purpose of this examination is to show, before we get through with this and other testimony of the same sort, that, if the price of coal in the open market to-day was reduced five or ten cents a ton, it would make it impossible to mine and take out a very large proportion of the anthracite coal now in the ground in either one of the three regions of Pennsylvania.

MR. MCREYNOLDS: Counsel for the Government is not prepared to make this admission, but renews his objection to this line of questions, upon the ground that the cost of mining coal in the anthracite regions is not involved in the issues in the present case.

JUDGE MOOT: The counsel for the defendant states that this evidence is offered for the purpose of showing the court that the cost of mining coal, including the wages of the workmen, is the great item of expense involved in producing coal, and the cost of producing the coal is the great controlling consideration that fixes its price in the market; and counsel for the defense claim that they must show the

cost of producing coal, for the purpose of showing at what price it must be sold in the market, and for the purpose of showing that the price in the market is not a combination price, as the Government charges, but is a price fixed by geological and economic considerations, over which no human being has any control.

MR. MCREYNOLDS: Counsel for the Government offers to admit that the cost of mining coal is an important element in determining the price at which it shall be sold. It also admits that, as the mines grow deeper and the coal grows scarcer, the cost of mining necessarily increases. Beyond that, it insists that these matters are not in issue and throw no light upon the question before the court.

JUDGE MOOT: The counsel for the defendant welcome the admissions made, and will avail themselves of them so far as possible, but insist that they must go further to show that the Government charge in the petition, that the price at which the coal is sold is an exorbitant price, is an unfounded charge, in that the cost of producing the coal is such that the price at which it is sold is not exorbitant, but is strictly reasonable and is one below which no producer, under the circumstances, can be expected to go.

By JUDGE MOOT:

Q. Has the Red Ash, as you have gone into the southerly region in mining it, agreeably disappointed the operators and mining engineers who have mined it, by turning out better than they expected, in the light of its history in the northern part, or has it developed about as they expected it would? A. In isolated cases it has turned out better, and in other cases it has turned out worse than we expected.

Q. While you speak of this as Red Ash vein, you do know of a coal produced and sold in the Schuylkill region called Red Ash coal, do you not? A. Yes, sir.

Q. This is not Red Ash coal, is it? A. It does not make a red ash. It is just a name.

Q. Given to a vein? A. Yes, sir.

Q. The coal itself is still what you call free burning, white ash coal? A. Yes, sir.

Q. As practically all the coal of the Wyoming region is, free burning, white ash coal, is it not? A. That is right. The ash from one bench of this Red Ash, if it lies out in the weather for a while, turns to pink, and that is the nearest approach that it is to a red ash.

Q. That is what gives the name to the vein then, I assume? A. I do not know.

Q. To what extent is the Red Ash vein mined out at present? A. I cannot answer that.

Q. That is too much? A. Yes.

Q. It is still being worked by several of the mines? A. Oh, it is being worked by a number of the mines.

Q. Of the operations under your charge or control, what mines are working on the Red Ash? A. Ewen colliery, Butler colliery, Barnum, Central, No. 9, Consolidated, Old Forge, No. 5, No. 1, Gypsey Grove, Forest City. The majority of them are working the Red Ash.

Q. Of those mines you have named over, being the majority of them, that are working the Red Ash, which ones, if any, have exhausted the major part of that vein in their workings? A. Consolidated; Central; that is all.

Q. Which ones, could you say, still have the major part of the vein to work, if any? A. Those that I named have the major part of the vein to work.

Q. What other mines in the Wyoming regions that you know of are also working the Red Ash vein at the present time? A. Mount Lookout; Jermyn 1 and 2—or Jermyn 1 now; 2 is out; Sibley; Greenwood 1 and 2; Sterrick Creek; Lackawanna; Ontario. That is all I can recall just now.

Q. Are the Delaware and Lackawanna mines working that vein at all, do you know, or do you not know about that? A. They are not working it extensively; but that I only have from hearsay.

Q. I suppose you could not tell us about the Delaware and Hudson's except by hearsay? A. That is only from hearsay.

Q. Of the mines that you do know about that are working on the Red Ash, could you give us any idea as to whether, as a whole, they have removed more or less than

fifty per cent. of the mineable contents of the Red Ash? A. I could not tell you.

Q. What is the next vein after the Fourteen Foot, or Baltimore, the Clark and the Red Ash? What is the next vein in importance and value that you know of in the Wyoming region? A. That is still being worked, you mean?

Q. Yes. A. New County.

Q. I wish you would describe that vein, as to thickness, character of contents and length, as well as you can. A. It is a very irregular vein. In some places it is thick, but most of the places very thin. The quality is not so good as either one of the other three veins. It is expensive to mine, except in one basin in the vicinity of Taylorville, and there it is a very nice vein of coal.

Q. It is about how many miles long, that New County vein? A. That is very hard to say, because it is so irregular. North of Scranton it is poor, and south of Scranton it is fairly good. That is as I recall it. I never expected to be asked these questions, and I am talking altogether from ——

Q. General recollection and observation? A. General recollection and observation.

Q. That vein varies and is so irregular, can you tell us a little more about how thick and how thin it runs when it does not pinch out? A. It is as thin in some places as twenty-one inches, or twenty-two inches, and runs up as thick as six feet.

Q. How is it as to being split? A. It does not split as much as either the Big vein or the Red Ash.

Q. How is it as to pinching out entirely? A. It pinches out entirely.

Q. Quite frequently? A. Yes, quite often—well, the Clark does too, in some places, but that happens; you will find that in all veins, of course, in some more so than in others.

Q. How is it as to the quality of this New County coal, the coal that comes from than vein, as to being consistent or inconsistent, good or bad? A. South of

Scranton it is fairly consistent; north of Scranton you cannot depend upon it.

Q. That is, north of Scranton you sometimes get it where it is coal but where it will not meet the requirements of a sixty-five per cent. contract as to standard? A. No, as to pinching out, as to being there.

Q. Generally speaking, the contents will pass the sixty-five per cent. contract as to standard? A. Yes, sir.

Q. What mines coming under your observation are working the New County vein to any extent? A. We are working it at the Erie; working it at Old Forge; No. 9; a very little at Butler; No. 6 and No. 14.

Q. Has it been worked out in any of the mines, so far as you know? A. Yes.

Q. In what mines has it been worked out? A. At Butler it is pretty well worked out.

Q. Is it untouched in some of the mines? A. Yes, No. 1. It is not touched in No. 1.

Q. Is it a vein that will be worked in all the mines you have under your control, or is it a vein that will not be worked in some of them? A. In at least one mine that I recall, it will not be worked until the price is much better than it is now. We tried to work it and it cost us three dollars and twenty-five cents a ton to work it.

Q. Three dollars and twenty-five cents to work it? A. Yes, sir.

Q. So you could not work it? A. Could not work it.

Q. Where did you make that experiment? A. Up at Forest City.

Q. What other veins are there in that Wyoming region that you know about that contain coal that can be worked at the present cost of working veins? A. I have named the principal ones. The Diamond is practically worked out and the Rock is generally worked.

Q. The Diamond and the Rock were veins—— A. They were upper veins.

Q. They were veins briefly of what size and description, each? A. The Diamond runs from five to eight feet. It

is full of slate partings. It is not a vein covering much territory, because it is one of the upper seams. The Rock is the one between the Diamond and the Big vein. That does not cover as much—covers, of course, more territory than the Diamond, but does not run over much of the region.

Q. And is, say, a vein about how thick? A. About four to five feet thick.

Q. When you say it does not cover much territory, those veins covered each about how many miles and were about how many miles long? A. I could not tell you, because they come in and out so much.

Q. They were very irregular and unreliable? A. They cropped, that is, they came to daylight.

Q. Those two veins were worked out about how many years ago, in the main? A. I should say twelve or fifteen years ago.

Q. Were they good veins where they existed, in the main? A. The Diamond was hard to prepare. The Rock was a good vein.

Q. What mine do you know of in the Wyoming region that is working or has any of either the Diamond or Rock vein that it can take out yet? A. That they still can take out?

Q. Yes. A. We have it at No. 1.

Q. That is a Pennsylvania mine? A. Pennsylvania mine.

Q. Do you have each of them there? A. I should not say that we have it there; I am thinking of the water tunnel. I do not know any place, I cannot recall any place now that has the Rock—oh, yes, we have it at No. 14 at a new opening we made there.

Q. Of the Pennsylvania mines? A. Yes.

Q. No. 14 has it at a new opening? A. Yes, the Cortwright slope goes into the Rock and the Hillman.

Q. The Hillman is a mine of what company? A. The Hillman is the vein, a local name; it is a question whether that is the Diamond or whether the Diamond is above that. We are working it at No. 14 at what we call the Diamond slope.

Q. Are those the only mines that you own in the Wyoming region which are working either the Diamond or the Rock at the present time, or having any of it worked? A. Those are the only ones I can recall. The way that those are being worked now is that we are going over the territory a second time, and this is isolated pieces, and we are getting at them now.

Q. Is very much of either the Diamond or the Rock left for you to work by going over the second time and picking up what was left in former mining operations? A. You do not catch the idea; these veins were not worked, but they were in isolated pieces of territory, and the veins underneath, the Big vein was worked and the Marcy partly, and then we discovered these patches, and we have gone back to mine those patches in those veins.

Q. I got exactly that idea, that you were going back to work these patches that were not worked the first time over in the mine districts; that is, when they worked or mined in the Big vein, they did not work these patches then? A. That is right. That is, for instance, here is a tract of land of say 600 acres. There may be hillocks, say, on that land and in those hillocks those veins may be, and the Big vein might cover the whole 600 acres, and they have gone back to mine those hillocks.

Q. Is there any large territory then containing either the Diamond or the Rock to be worked? A. Not to my knowledge.

Q. Now you spoke of the Marcy vein. That you have not talked about or described before, although you have mentioned it once or twice. What is there about the Marcy vein? A. That is the New County. Marcy is another name for the New County vein, which I have described.

Q. Are there any other veins in the Wyoming region of workable coal, that you can think of, to which you have not referred us or of which you have not given us a brief description? A. No, none that I recall in the Wyoming region.

Q. Broadly and generally, to what extent is there what I may call virgin coal land, that has not been opened up

yet or mined at all by any of the companies? That is, to what extent is there coal land where a shaft has not been put down from which by tunnels you could reach the coal tributary to it, so that absolutely new mines have got to be opened up to develop that virgin territory? Do I make myself clear? A. Yes. There is comparatively little; the extent I cannot give you. We have one—the Pennsylvania Coal Company has one piece of property that is undeveloped.

Q. That is a piece of property about how large? A. There are about 16,000,000 tons in that property.

Q. About how many acres? A. I could not tell you the acreage.

Q. Approximately only is all I care for. A. We usually go by the tonnage—1000 to 1200 acres, I would say.

Q. Of that 16,000,000 tons in that piece of what you might call virgin territory, that you are yet to open up, about what proportion can be taken out? How much of it will you have to leave behind, if it runs as it ordinarily runs, and how much of the 16,000,000 tons—or is the 16,000,000 tons what you estimate you can take out? A. Yes, that is what we expect to win.

Q. Then how much do you estimate is in that? A. Roughly speaking, there ought to be 1800 tons per foot acre, and this estimate of 16,000,000 is based upon 1100 tons per foot acre.

Q. So that out of about 1800 tons per foot acre you figure to get out about 1100 tons and how much? A. 1100 tons per acre.

Q. And you figure you will have to leave behind the balance? A. No part of it will be left behind; a part of it will be wasted through preparation; that is, the wastage ——

Q. Of mining? A. Of mining.

Q. In other words, the miners put in their powder—it is powder they use, is it not? A. Yes, sir.

Q. They put in their powder and they are careless and they blow the coal all to pieces, so that it is good for nothing sometimes? A. Yes—well, we will find loose pieces of terri-

tory, and some places we will have to leave the pillars in, and the miners blast it; and there will be pieces of coal lost or thrown in the gob, and when it goes to the breaker, we break it up and a lot goes to the waste pile. Some of it sticks to pieces of rock and that goes into the waste pile; and the difference between 1100 tons per foot acre and 1800 tons per foot acre is made up of these different things.

Q. For that 1000 acres, how many mines would it be necessary to open in order to mine that coal? A. We are going to open one colliery.

Q. For that thousand acres? A. For that thousand acres; that is our intention.

Q. The Pennsylvania Coal Company is planning to open that colliery? A. Yes, sir.

Q. In the near future? A. In the near future.

Q. About how near? A. As soon as we can get the money.

Q. The Hillside; have they any virgin territory to open at all? A. We have some.

Q. Will you have to open a new mine to get it, or will you simply have to run new tunnels or drifts to get it? A. We will have to open a new mine.

Q. About how much territory has the Hillside to open? A. About two hundred acres, about 1,800,000 tons of coal.

Q. That you expect to win? A. We expect to win.

Q. And that will require a single mine? A. A single operation.

Q. Or mine? A. Yes, sir.

Q. Has the New York, Susquehanna and Western Coal Company any new territory to open at all? A. No, sir.

Q. By the way, is the New York, Susquehanna and Western Coal Company mining any coal at the present time? A. No, sir.

Q. How long is it since it has been? A. The New York, Susquehanna and Western never mined any coal.

Q. Never did since it came into your hands? A. No, sir.

Q. And that was in 1898? A. 1898.

Q. What does the New York, Susquehanna and Western

Company do with its coal lands? A. Leases to other parties.

Q. It has about how many acres? A. About nine hundred; between nine hundred and one thousand acres.

Q. And that acreage is leased to whom? A. Jermyn & Co. and Elliot-McClure & Co.

Q. The mines that are taking their coal out that is thus leased are what mines by name? A. The names of the collieries?

Q. Yes. A. Jermyn No. 1 and Sibley colliery.

Q. Is the Jermyn No. 2 still running? A. Jermyn No. 2 is burned down. The coal from that goes to No. 1.

Q. I take it then that those leased by the New York, Susquehanna and Western to Jermyn & Co. and to Elliot-McClure & Co. are leased to those two concerns to take out the coal on a royalty basis? A. Yes, sir.

Q. Were those leases made before or since 1898? A. Before.

Q. When the Erie Company got control of the New York, Susquehanna and Western Company through the stock then, it found those leases in existence? A. The leases were in existence in 1898.

Q. At the time, I say? A. Yes, sir.

Q. I assume you do not know about the stock purchase, but you do know there was a time when you became superintendent? A. Yes, sir.

Q. And those leases were in effect then? A. Yes, sir.

Q. And were for the contents of the seams of coal in the ground, were they? A. Yes, sir.

Q. On a royalty basis? A. On a royalty basis.

Q. So that, as long as these people who had these leases continued to mine coal according to their contracts, the New York, Susquehanna and Western was powerless to stop it? A. Yes, sir.

Q. Does all that coal go out over the New York, Susquehanna and Western Railway line? A. No, sir.

Q. What coal goes out over that line? A. The coal from Jermyn's operations.

Q. You say the Jermyn No. 1 is still running and Jermyn No. 2 is stopped? A. Yes, but there is a washery put in place of Jermyn No. 2 breaker, that is washing over the culm bank that was made by the operation of Jermyn No. 2 breaker.

Q. So that, while Jermyn No. 2 colliery has been exhausted, the coal in the culm bank is still being washed? A. The coal was not altogether exhausted in No. 2. It is being taken to No. 1.

Q. It is consolidated? A. It is a consolidated operation.

Q. For economic reasons? A. We did not have to build No. 2 again.

Q. What was the trouble? A. It had been burned down.

Q. So they raise the coal from Jermyn No. 2 to the surface and then run it over to Jermyn No. 1 for preparation, do they? A. I do not know.

Q. Whether they raise it or tunnel it? A. Whether they raise it or run it through.

Q. The Elliott-McClure, do they send their coal over the New York, Susquehanna and Western? A. No, sir.

Q. What company takes that to market? A. I think the Lehigh Valley.

Q. Anyhow, neither the New York, Susquehanna and Western nor the Erie Companies take it? A. No, sir.

Q. Whether it is free tonnage, or Elliott-McClure can send to market over any line they choose, I do not suppose you know? A. I do not know.

Q. Your connection with the Jermyn mines and the mines of Elliott-McClure & Co. is to see, I assume, that the New York, Susquehanna and Western gets its royalties on the tonnage mined; is that right? Yes, sir.

Q. And that the mining operation is properly conducted under the lease; is that correct? A. Yes, sir.

Q. Does the New York, Susquehanna and Western Coal Company buy or sell any coal, so far as you know? A. They buy the coal from Jermyn & Co. under the sixty-five per cent. contract.

Q. What do they do with it? A. They sell it in turn to the Pennsylvania Coal Company.

Q. Under the sixty-five per cent. too? A. Yes, sir.

Q. So that it is simply a case of one company, in which the Erie is the principal stockholder, buying the coal and turning it over to another at the same price, and in which the Erie is also the principal stockholder, as you understand it? A. Yes, sir, as I understand it.

Q. Some matters affecting that you do not have under your charge? A. I presume so.

Q. Anyhow, that is the way it is done? A. Yes, sir.

Q. Has the New York, Susquehanna and Western Coal Company been a company mining coal itself or conducting any actual operations itself since 1898, except to buy this Jermyn coal and turn it over to the Pennsylvania Company and to take its royalties under the leases? A. It bought other coal from other operations besides from Jermyn & Co., since 1898.

Q. When did it cease to buy anything except from Jermyn & Co., or about when? A. Four or five years ago, I think. It may be longer ago than that. I think that the Clarence was the last sixty-five per cent. the New York, Susquehanna and Western Coal Company had. I do not remember exactly.

Q. So your best recollection simply would be that their purchase of coal for the last four or five years has been confined to purchasing the output of the Jermyn mines and turning that over to the Pennsylvania Coal Company? A. Yes, sir.

Q. Otherwise, their mining operations have been simply to take the royalties on their leases from the Jermyns and the royalties on their lease to Elliott-McClure & Co.? A. Yes, sir.

Q. In other words, as Major Warren suggests, the New York, Susquehanna and Western Coal Company has become one of these "Coal Barons" that enjoy royalties and nothing else? A. Yes, sir.

(At 1 P. M. a recess was taken until 2 o'clock P. M.)

2 O'CLOCK P. M.

Present:—Messrs. McReynolds, Todd, Moot and Warren.

Examination of Captain May resumed.

By JUDGE MOOT:

Q. You spoke of some mines as being worked out. Have many mines that were under your charge been worked out since you have had charge of these mines of these companies in the anthracite region? A. The Keystone colliery is worked out; the Glenwood is nearly worked out. The coal remaining will go to Erie colliery. The coal from the Clifford colliery will be taken, or is taken, to Forest City colliery, the Clifford breaker having been abandoned because it rotted down. The Keystone colliery is the only one that is really worked out.

Q. Have any other of their collieries been worked out during the years that you have had charge of these companies' operations? A. None worked out, but the production decreased in instances where we consolidated collieries.

Q. Consolidated them how? A. By taking the product to one breaker instead of operating two breakers, and in one instance, three breakers.

Q. Consolidated it all in one breaker? A. Yes, sir.

Q. It being cheaper, in other words, in the case of the two breakers in question, to take their produce underground or overground to another breaker and prepare it for market, than it was to continue to run a separate breaker for it? A. Yes, sir.

Q. The point is reached in production where it is cheaper to take it to another breaker and prepare it than it is to have a breaker of its own to prepare it? A. Yes, sir.

Q. If the output is sufficient, I assume that a separate breaker is essential and is really economical in preparation? A. Yes; but the trend now is towards a large

breaker making a large colliery out of two or more smaller collieries, even though they may not be so far exhausted as to make them expensive as individual collieries; but it is less expensive to consolidate.

Q. Why is that the trend at the present time? A. Because we are introducing machinery and power haulage, so that we can carry further and so consolidate our organization.

Q. By power haulage you mean that you are putting electric plants in the mines and substituting electricity for mules for hauling the coal? A. We are substituting electricity and compressed air inside of the mines and steam locomotives outside of the mines, so that a mule outside now is a rarity.

Q. Mules used to do the work outside as well as inside the mines? A. Yes, sir.

Q. Until about what time? A. About fifteen or sixteen years ago.

Q. And then this tendency began to show itself, of larger breakers and machinery, in place of mules? A. From fifteen to twenty years ago.

Q. Larger breakers became the tendency when? A. About twelve years ago.

Q. Let us see if we get that clear. Steam locomotives outside began to take the place of mules about fifteen or twenty years ago? A. Yes, sir.

Q. Larger breakers began to come in about twelve years ago? A. Yes.

Q. Electric hauling in mines began to come in about how many years ago? A. We put in the first one in 1889; but it did not become general until about ten years ago.

Q. The first one you put in in a mine of what company? A. The Hillside Coal and Iron Company at Erie colliery.

Q. What is the advantage of steam hauling? A. Is it an economic advantage or what? A. It is an economic advantage.

Q. In what way? A. You can haul at the same cost a much longer distance.

Q. You can run tunnels after the vein how great a distance from the shaft and still operate them all right? A. About two miles, or two miles and a half.

Q. When you used mules instead of electricity to haul the coal to the shaft from the end of the tunnel, then it was practicable to go about how far? A. About twelve hundred feet, twelve hundred to fifteen hundred feet.

Q. Does it require any more capital to substitute locomotives on the outside, and the larger breakers, and to substitute electric haulage for mules on the inside? A. Yes, sir.

Q. Can you give us an idea of how much more capital it requires for a mine at the present time as compared with, say eight or ten or twelve years ago, in order to have the most economical operation by steam and breaker and electric haulage, as compared with the old companies? Can you give us any general limits? A. You mean a colliery now; that is, taking everything?

Q. Yes, sir. A. It will cost double, taking an entire colliery. Of course, if you take the matter of haulage alone, the electric haulage, the first cost will easily cost ten times as much as mule hauling.

Q. What would you say was the maximum and minimum expense ordinarily of opening a mine to-day? I assume its capacity in tonnage per day or year will have something to do with it, so I wish you would relate it to tonnage capacity. A. The tendency is to large tonnages and we do not care to have an operation that produces less than fifteen hundred.

Q. Fifteen hundred tons a day? A. Yes, or two thousand tons a day, and to open up a colliery to produce two thousand tons a day or twenty-five hundred tons a day will cost from $600,000 up to $800,000, depending on the locality, the depth of the seam below the surface, and the difficulties met with in developing.

Q. In that Wyoming region, such a mine opened up lasts about how many years before it is exhausted, the minimum and the maximum? A. Twenty-five to fifty years.

Q. During that twenty-five to fifty years, according to your experience, this plant, this breaker machinery and the electric haulage, and all that, they have to be renewed from time to time as a whole, aside from keeping them in repair; about to what extent? A. We try to keep them up.

Q. That comes in the repair bill from day to day and year to year? A. That comes in the repair bill and that is counted in the cost of coal; that is, we do not keep track of it.

Q. You do not keep account of it as capital account, but it goes into the cost of coal? A. That is right.

Q. But the original plant does get into capital account? A. Yes, sir.

Q. When your coal is gone, you must have got it back or you never will get it back? A. Yes, sir.

Q. Let us start with the northwest operation, the one at the upper end of this Wyoming Valley that you have charge of for the Hillside Coal and Iron Company. What operation is that? A. You mean the northeast?

Q. The northeast I mean, yes, sir. A. That is the Forest City collliery.

Q. That colliery of the Hillside Coal and Iron Company has been in operation about how many years? A. The first opening was made there in 1874, but the production was not very heavy until 1890, I think.

Q. About what is that mine producing now in a day or month, or a year, in any way that you wish to tell us? A. About 300,000 tons a year. We expect by the consolidation of Clifford with Forest City, which was consolidated this last year—we expect to run it up to a half million.

Q. To half a million tons a year? A. Yes, sir.

Q. Then the Clifford is right near it? A. The two breakers are within two thousand feet of each other. Without the Clifford, which is now being torn down, we expect to reach half a million tons, if we reach an exchange with the D. & H. for some lands in that vicinity of some of our lands near their works.

Q. You are now trying to exchange land of the Hillside Company how far away? A. About twelve miles away—down toward Scranton.

Q. Near what point? A. Near Archbald.

Q. Near what mine of the D. & H.? A. The White Oak, their present White Oak; but whether they would take the coal there or make a new operation, I do not know.

(The Government objects to this line of examination. The facts throw no light on the issues involved, or, if there is any possible connection between these facts and the issues, it is too remote to be proper evidence.)

Q. Down near this White Oak mine of the Delaware and Hudson, the Hillside has about how many acres of unmined coal land? A. Something less than two hundred acres.

Q. That is adjacent to the coal land of the Delaware and Hudson Company? A. Yes, sir.

Q. Up near the Forest City and Clifford mines of the Hillside, the Delaware and Hudson has about how many acres that are unmined? A. The acreage I do not recall, but the estimated tonnage is 2,000,000 tons.

Q. To get that 2,000,000 tons out of the ground, if the exchange is not made, the Delaware and Hudson would have to put down a shaft, build a breaker and put in in the neighborhood of how much money? A. They would take the coal, I think, to their Clinton breaker, which lies to the southwest of Forest City breaker a mile.

Q. They would have to put down a shaft, would they not? A. They would have either to put down a shaft or drive tunnels to get it.

Q. To develop that land, to get that 2.000,000 tons of coal out, would it be necessary for the Delaware and Hudson to be to any additional expense over and above what it would be necessary for the Hillside Coal and Iron Company to be put to to get it out? A. Oh, yes.

Q. About what difference would it make? About what economic saving would it be if the Delaware and Hudson and the Hillside can agree on this exchange of land? About what economic saving of money will it be if the Hillside

Coal and Iron Company get that 2,000,000 tons out instead of the Delaware and Hudson? A. By saving, do you mean a saving to each company or a saving in development, that is, money that would be expended in development?

Q. I mean money that the Delaware and Hudson would have to expend if they took it out, that the Hillside Company will not have to expend if they take it out. A. You see, there are so many things enter into that—it would be to the advantage of the Delaware and Hudson to make the exchange and it would be to the advantage of the Hillside Company to make the exchange; the advantage to the Delaware and Hudson will be its contiguity to their land, so that there will be more land tributary to their operation. The same will apply to the Hillside up above; but there will be a greater saving to the Hillside, because down at Archbald they would have to build a breaker and sink a shaft, make railroad connections and all that; but the intrinsic value of the coal at Archbald is worth more than the intrinsic value of the coal of the Delaware and Hudson at Forest City, so that, as between the two, the advantage of the exchange is really equalized. From an economic standpoint, however, there will be money saved in that there will not be that much money put into a mine which is not required.

Q. I was getting at about how much money would not have to go into work that will be lost forever, unless it is gotten back in profit on the operation? A. The Hillside at Archbald would have to expend at least half a million dollars that they do not have to expend.

Q. That will not have to be spent by anybody if this exchange is made? A. If this exchange is made. The Delaware and Hudson would save at Forest City at least $200,000.

Q. So that, if they can agree between themselves on this exchange and on a basis of exchange, the net saving in operating expenses that they —— A. The net saving in money spent would be $800,000, from $800,000 to $1,000,000.

Q. The amount of coal down there at Archbald that the

Hillside Company would be able to take out from that about two hundred acres with an expenditure of about $500,000 to get ready to take it out, would be about how many tons? A. One million eight hundred thousand tons.

Q. So that that half million dollars that it would spend to get at the thing, together with whatever was necessary for repairs from time to time, would have to be got back on that 1,800,000 tons? A. Yes, sir.

Q. And up at Forest City, the Forest City mine, that—2,000,000 tons, did you say it was, about? A. Yes.

Q. That 2,000,000 tons would have to return about $300,000 in money that it will not have to return now, if the exchange is made? A. That is right.

Q. Does that illustration of what may be saved by this exchange have any application whatever to the advantages of having a large amount of coal land owned by a single company, with capital to develop it, as compared with a small amount of coal land owned by an operator somewhat lacking in capital to develop it? A. The advantage would be in the large acreage and in the large capital.

Q. With large capital and large acreage, is it possible to mine coal that cannot be mined with a small acreage and small capital? A. Yes, sir, on account of the economies that can be introduced.

Q. That can be introduced with a larger capital and acreage? A. That is right.

Q. Is it possible, from your experience, by illustration or otherwise, to give us any idea of the advantage per ton or in any other way, that the large capital and the large acreage has over the small capital and the small acreage in producing coal at the same time and the same price, or couldn't you do that? A. That would be very hard for me to do.

Q. That would be very hard to do? A. Yes, sir.

Q. The advantage is there, but when you come to putting it into dollars and cents, it is not easy to do it? A. It would take too long to work ——

Q. To figure it up? A. To figure it up.

Q. These mines, the Clifford and the Forest City, if

this exchange is not made, will last about how long? A. Fifteen to twenty years.

Q. If the exchange is made it will probably add to their life, by giving additional tonnage to take out, about how many years? A. From twenty to twenty-five years.

Q. That is, it will add about five years? A. Yes, sir; from five to eight years, I will say.

Q. While you are operating the mine, how is it? Is the mine equally cheap to operate from the time it is opened until it is finished, or does it have its period when it is more expensive to operate and its period when it is cheaper to operate? A. It is more expensive to operate a colliery when it cannot be operated to its full capacity, and it takes a certain period to get a colliery up to its full capacity. Then, when it has reached its maximum, after a certain length of time it will run down, because of the reduction in the quantity to be drawn from, and the cost will again increase as the production declines. Then there is a period of running along when the colliery is working at its full capacity, and then, when the quantity of coal decreases so that it cannot run to its full capacity, the yearly tonnage decreases and the cost increases.

Q. The period of going up, that is, the period of time during which the colliery is becoming less and less expensive to operate, broadly and generally speaking, in the Wyoming region, is about how many years? A. I would say that it would take about a third of the life of the colliery, about a quarter to a third of the life of the colliery to reach its maximum tonnage; from a third to a half to run at its maximum tonnage, and from a quarter to a third to run down hill.

Q. When the expense is increasing all the time? A. Yes, sir.

Q. What would you say, generally speaking, would be about the life of a colliery in your region there? A. From twenty-five to fifty years.

Q. Can you give us any idea of about what the difference would be, minimum and maximum—within what ranges, at least—about what the difference per ton or in

some other way would be between operating a colliery at its full capacity, ordinarily, and operating a colliery during these periods of time when it is not fully developed or when it is running down? A. The difference would run up as high as from fifty to seventy-five cents a ton.

Q. It would? A. Yes.

Q. In the same colliery? A. In the same colliery.

Q. The same machinery and everything? A. Yes.

Q. How is that? Make that as clear as you can on the record. A. The greater the tonnage—I mean, the more nearly you run to the capacity of a place—and, indeed, I might say the greater the tonnage of the colliery, up to a certain limit, the more economical it is. Of course, just as soon as the quantity of coal you have in reserve is reduced so that you cannot mine the maximum quantity, the cost increases, because your expenses remain very nearly the same; of course, they decrease some, but they do not decrease to the same proportion as the tonnage decreases.

Q. In other words you have a breaker to operate with power, and as long as you operate that breaker, that costs about so much any way? A. Yes.

Q. You have an electric haulage system in the mine to operate with power and as long as you operate you have to operate that any way? A. Yes, sir.

Q. You have to have the men necessary to operate your breaker and have to have the men necessary to operate your electric haulage, whether you are handling many or few tons? A. Yes, sir.

Q. You have all your capital, whether it is half a million or a million dollars, on which you have to pay interest or do something somehow, and that is there whether you are producing many tons or few tons of coal, or no tons at all; that is true? A. Yes, sir.

Q. All those elements being in the thing, it becomes important to operate at full capacity, if you can? A. Yes, sir.

Q. And that has always been so? A. So far as my experience goes.

Q. It is more so because the capital account is bigger now; is that so too? A. Yes, that would follow.

Q. Take your largest operation under your charge now; it is an operation producing about how many tons? A. About three quarters of a million a year.

Q. That is which one? A. Old Forge.

Q. To run the machinery, breakers, and so forth, connected with that operation, entails an expense of about how much a day on the company, if you know, or have an idea? A. About $4000 a day.

Q. That is independent of capital account? A. Yes, sir.

Q. Your capital investment there for breakers and machinery, and so forth, is approximately how much? A. Exclusive of the coal lands, you mean?

Q. Exclusive of the coal lands. A. Just the development?

Q. Just the development. A. About a million dollars.

Q. At five per cent., that would require $50,000 a year, if it were borrowed capital, to take care of that? A. Yes, sir.

Q. Or in the neighborhood of twelve hundred and fifty dollars a day on capital account? A. $50,000 a year?

Q. Yes. A. That would be four thousand dollars a month; it would not be twelve hundred and fifty dollars a day.

Q. No, that is right. A. About one hundred and twenty-five dollars a day.

Q. Then, to get out that amount of coal, you have to have men in addition, of course? A. Yes, sir.

Q. If those men go on a strike and you still have to run your machinery and everything of that kind, for any reason, and have everything ready to go ahead, then you are out an expense of about $4125 a day at your colliery, doing nothing practically? A. Oh, no, the four thousand dollars a day includes what we would pay the men, you know.

Q. All the men? A. Yes.

Q. Take out what you would pay the men that do the

mining, and just run your machinery and everything of that kind and take care of your capital account on an interest basis as I have suggested, and then what is your expense a day there with the mine standing idle because the men will not work? A. It is pretty hard to say. We do not keep track of our——

Q. You will have to estimate it approximately. That is why I am putting it to you, as an experienced man.

A. It would cost about a hundred dollars a day, I should say.

Q. Aside from the capital account? A. With the capital account, it would make it about, say two hundred and fifty dollars a day.

Q. Then if that mine got to a point where the tonnage produced was very small, that two hundred and fifty dollars a day might make it advisable to just leave what little there was of that tonnage, rather than to try to operate the mine and take it out? A. Yes.

Q. And that does happen, as a practical matter? A. Yes, sir, it does.

Q. And that does explain why these strikes are expensive to the companies and why they avoid them if the can, does it? A. Yes, sir, that is one of the items.

Q. Does it also show why the motive of the company is to operate full capacity, because the nearer they come to operating full capacity all the time, the cheaper they can produce coal and the more profit they can get out of their coal? A. Oh, yes; but, in the matter of running full tonnage, when we can only run a part tonnage, the cost is even more, sometimes, proportionately than it would be if it was idle. I do not mean to say——

Q. Perhaps you can convey your meaning by illustration, something in your experience that would make that clear? A. Say, for instance, we can run Old Forge colliery at its full capacity at one dollar and forty cents a ton. If the tonnage is not up to its full capacity it might cost us—depending upon the number of tons we were producing—as much as one dollar and seventy-five cents a ton. That would be thirty-five cents a ton that it would

cost in addition. It might run up to two dollars a ton. That cost is more than if we left the place completely idle; that is, I mean, the gross cost. You get my idea?

Q. What you mean is that, if you had your choice between running Old Forge at, say half its capacity all the time, and running Old Forge at its capacity half the time and shutting down the balance, in that particular case it might be advisable to run it at full capacity half the time and shut down the other half entirely? A. That is right.

Q. Then, if you did that, of course you would lose your labor force and organization and you would have to commence all over when your six months were up? A. That is right.

Q. And then you would greatly increase the cost of the operation, until you got your labor organized over again, which would be a long time? A. Yes, sir.

Q. You have how many men, for instance, in the Old Forge, to operate that, to take out this large tonnage? A. About fourteen hundred men.

Q. The figures you used by way of illustration, to show me the difference, were they just named at random, or is there even as much as a range of thirty-five cents difference between running your mine full capacity and running your mine say at a half of two-thirds of its capacity? A. I would say that thirty-five cents would be larger than it would ordinarily run. I would say that twenty-five cents a ton would be nearer.

Q. Would it be approximately the difference it would make between running it at full capacity or, say, running it at half or two-thirds its capacity? A. I would say about twenty-five cents a ton; that is as I recall it.

Q. That would be the nearest approximation you can make from recollection and your experience, would it? A. That is as near as I can recall it. We have run so well that we do not get to such long periods of idleness as half time, so that it is hard for me to approximate what the cost would be if we only ran half tonnage.

Q. For about how many years have you been running

so well, so near full time? Since the strike of 1902, for instance? A. Yes, sir, since the strike of 1902.

Q. And since the strike of 1900 down to the strike of 1902? A. We have had very little idle time since 1899, except when we have had strikes or suspensions; that is, when I say suspensions, I mean when the men would not work.

Q. But your main suspensions since 1899, your main periods of idleness have been the strike of 1900, the strike of 1902 and the suspension of April to the first of May, 1906, are they not? A. Those are the main ones.

Q. How is it about the men being willing to work holidays? A. They do not want to work holidays.

Q. About how many holidays do they have up there? A. Get me a calender of the Greek church and the Catholic church and our national holidays, and I will tell you about the number we have.

Q. You have them all? A. Well, practically.

Q. Do you practically have to shut down for all those holidays? A. Not at all the places on every day; but at some places, you see. Now, for instance, where we have a majority of the Irish controlling, we are shut down on St. Patrick's Day. Where we have Russians or Slavs, we shut down on "Little Christmas" and holidays pertaining to their church. Where we have Catholics, that is Poles and German Catholics, as well as the Italian Catholics, we shut down upon the holidays of Roman Catholic church. But, of course, we do not have the same churchmen at all collieries.

Q. Have you any idea of about how many holidays there are, with all these churches and the national holidays and the rest, that stop some or all of the mines during the year? A. I will try to add them up. Then there is Labor Day and John Mitchell's Day, too; I forgot those. (After calculation.) Between fifteen and twenty.

Q. Do you work Sundays? A. No, sir.

Q. Do you have any breakages? A. Oh, yes—of machinery?

Q. Yes. A. Yes, sir.

Q. Some of those are of a character to stop your production? A. Yes, sir. Then we have disasters inside of the mines that will stop a mine.

Q. Such as gas explosions? A. Yes, sir; or fire, or drowning. We have had collieries stopped for two months, being drowned out.

By MAJOR WARREN:

Q. Where was that explosion? No. 14? A. No. 14; Mount Lookout had an explosion, too.

By JUDGE MOOT:

Q. On the average, a colliery can work, aside from Sundays and holidays, and with a fair allowance for breakages and difficulties, about how many days a year? A. Two hundred and twenty, about.

Q. Does weather interfere in it? A. Not materially.

Q. Do you ever have any difficulty about getting cars? A. Oh, yes; not so much of late years.

Q. Due to what? A. Either bigger trade in some other direction, or the cars are loaded with coal when it cannot be sold; the cars are sometimes loaded, or may be loaded, with bituminous coal. We are short of cars at times.

Q. You have not been short of cars much since the panic of 1907 and the consequent supply of idle cars? The last year or two it has not bothered you any? A. We have had lots of cars.

Q. But before the panic of 1907, and while traffic was congested in the railways for some period of time, and it was difficult for everybody to get cars for their business, did you have difficulty also in getting cars for your coal business? A. Yes, sir.

Q. Even for the Hillside and the Pennsylvania? A. Yes, sir.

Q. You had the same difficulties for those companies that an independent operator would have for his company? A. Yes, sir; that is, if you are speaking of those that we know about.

Q. That is what I mean. What do you say, on the basis of your experience and observation since 1899, as

to whether these companies have been able to run substantially full time and get out their coal to the extent that they were able to get cars for it when there has been congestion, and to the extent that they were able to operate when there were no strikes or anything of that kind? A. Practically full time.

Q. Since 1899? A. Since 1899.

Q. What has been your effort, as the man managing these mines that you have now, broadly and generally? Has it been to produce all the coal you could all the time or to produce some restricted tonnage of coal some of the time? A. We have tried to produce all the coal we could.

Q. All the time? A. Yes, sir.

Q. I presume you are trying to make a little money on this coal business, or trying to produce it so the companies could? A. That is what we are aiming for.

Q. And, as an operating man, you have given us the reasons why, if you could run full capacity, you could produce the coal at a point where they could make a good deal more money than they could on any other basis of production? A. Yes, sir; that is right.

Q. You say you think about twenty-five cents a ton more on the average? A. Yes, sir.

Q. What do you say, so far as you know about these coal regions, as to the one in which the coal can be produced the cheapest of the three regions, the Schuylkill, the Lehigh and this Wyoming region? A. I do not know anything about the cost of coal in the Lehigh region, but what little I know of the Schuylkill region, the coal is produced more cheaply up in our region than it is in the Schuylkill.

Q. Did you ever have any personal experience in the Schuylkill region as superintendent of a mine or stockholder in a mine? A. Stockholder in a mine.

Q. In what mine and at what time? A. In the Chamberlin colliery, of the Chamberlin Coal Company, near Pottsville.

Q. That was about when? A. 1895 or 1896, somewhere around there.

Q. How long were you interested in that operation as a stockholder? A. Five or six years, I should say; a limited period of time.

Q. That was an operation that covered about how much unmined coal when you started in on your operation? A. Some estimated that there were 30,000,000 there; but then, the more conservative estimate was about 12,000,000 tons.

Q. The estimates of men in the business differed that widely on that particular mine, did they? A. That is right.

Q. As to the amount of tonnage there was unmined? A. That is right.

Q. You are speaking now of the tonnage that they estimated could be taken out? A. Yes, sir.

Q. It was an individual operation, or what you would call an independent operation? A. Yes, sir; it was.

Q. After it had continued five or six years, about 1895 or 1896, it reached what point financially? A. It reached bankruptcy.

Q. Was it closed up through the Bankrupt Court? A. I do not recall—let me see. The Chamberlin Company was taken over by a new concern called the Marion Coal Company, and whether they went into bankruptcy or not, I do not know. I had no interest.

(The Government counsel objects to this line of evidence. This witness's individual experience as a stockholder has nothing to do with this issue and the matter is wholly irrelevant and fills up the record without any beneficial effect.)

JUDGE MOOT: If prices that far back got to the point that independent operators went into bankruptcy, it seems that for a good while they have been at a pretty low point.

By JUDGE MOOT:

Q. Did you get anything out of you stock, or was it a dead loss? A. That was a dead loss.

Q. Did the mine close down? A. Yes, sir.

Q. Has it ever been operated since that time? A. It has not been operated since.

Q. What has become of that property? A. It was purchased by the Delaware and Hudson Company.

Q. That was purchased, you say, by the Delaware and Hudson or the Hudson Coal Company? A. It was a concern affiliated with the Delaware and Hudson Company. The way I came to know, I was also interested in the land ownership. The Chamberlin operated under a lease, and we sold out the land ownership to a party that we understood was negotiating for the Delaware and Hudson Company. That is the way I came to know.

Q. That was about how long ago? A. About three or four years ago—about three years ago.

Q. Is the Delaware and Hudson Company, or the purchaser whoever he may be, or anybody else, operating it still? A. No, sir.

Q. During that period of time that you were interested in the mine, either as stockholder or as a land owner, according to your judgment, was there any period of time when that property had in it any reasonable margin of profit if it were operated. A. When we had it, it was not operated at a profit for any length of time. It may have been for a month or may have been for two months, but no longer than that.

Q. Did any time come, after it was closed up and went into bankruptcy, the operation, when you people who were interested thought it could be started up again and operated at a profit, as long as you were interested in it? A. We did not think it would be profitable to start it up, because neither we nor the successor started it up.

Q. To what that experience in the Schuylkill field would apply to anybody else, of course, you do not know? A. I do not know.

Q. As a mining engineer, you recognize that that might be true of that particular experience in that field and the very next one might show a profit? A. Might be a success.

Q. During those years that you have been connected with mining coal, have you known any leases to be thrown up at any time because the holders reached the conclusion

that the lease could not be operated at a profit? A. Yes, sir; the Pennsylvania Coal Company in 1889 relinquished the lease of a property which they had from the New York and Boston Coal Company, because they thought the coal left was not of a workable quality and could not be marketed.

Q. That was about how many acres? A. I could not tell you.

Q. What do you say about the mines of the Pennsylvania Company as a whole, as to how they compare with the mines of the various other companies in the Wyoming region as to being mines that can be operated cheaply or that are expensive to operate? A. They can be operated economically.

Q. Do you know of any in that region that can be more economically operated, so far as you have knowledge of that region, than the mines you manage yourself? A. No, sir, I do not.

Q. As compared with the Hillside Company and its mines, in a general way, what would you say as between the Pennsylvania and the Hillside Company's mines as to which is the more expensive to operate? A. The Hillside.

Q. Have you any idea, in a general way, of about how much more expensive per ton, for instance, they are to operate? A. Twenty-five to thirty cents.

Q. A ton? A. Yes, sir.

Q. Why is it that the mines of the Hillside are twenty-five or thirty cents a ton, in a general way, more expensive to operate than the mines of the Pennsylvania Coal Company? A. Because of the character of the seams and of the thickness of the seams and of their location; the quality of the coal; and general physical reasons of that kind. The Hillside came into the valley, was one of the latest comers there, and they took lands there which had been refused—not refused, but had been ——

Q. Left? A. Yes, left.

Q. By other companies? A. By other companies, and naturally were not as good, and that is the main reason why Hillside is more expensive than Pennsylvania.

Q. The Pennsylvania and the Delaware, Lackawanna and Western were among the earliest comers in that field? A. They were, yes sir.

Q. And got the pick of the lands? A. Yes, sir.

Q. That is one big reason why their mines have thick veins that are cheaper to operate? A. Yes, sir.

Q. Are you troubled any with water in any of the mines that you have the management of, in any way to add to the expense? A. Yes, we are, or have been.

Q. Where? What mines of what companies? A. The Glenwood of the Hillside has been drowned out two or three times a year. The No. 1 of the Pennsylvania used to be drowned out occasionally, but we have driven a tunnel there that takes the water away from No. 1. We cannot do that at Glenwood, because it is below water level.

Q. We will take the No. 1 of the Pennsylvania, where you have driven a tunnel to take the water away; how long a tunnel is that? A. About seven thousand five hundred feet.

Q. That tunnel empties the water where? A. Into the Lackawanna stream.

Q. The Lackawanna River? A. Yes, sir.

Q. Near what point? A. In the Greenburg section of Scranton.

Q. That tunnel of the Pennsylvania Coal Company at No. 1 colliery cost about how much? A. Over $100,000.

Q. Why did you drive that tunnel costing $100,000, that will become worthless when the mine is exhausted, thus losing all that money, when you could have put in a pump and might have pumped that water out of the mine? A. Because it was less expensive.

Q. Less expensive to put that tunnel there and lose the money that went into it than it would be to put a pump in that mine and pump the water out? A. Yes, sir. As we break the surface in taking out the pillars, the water comes in with a greater rush, that is, in the Spring and Fall when we have the heavy rains, and it would be almost impossible to keep the mine from drowning with any number of pumps that we might put in. The water

coming out of that tunnel last Fall and last Spring the volume was ten feet wide by two feet deep, and it would take a powerful pumping plant to take care of the water.

Q. Have you any idea how much it would cost in the end to have kept that mine dry, or dry most of the time, with pumps compared with what it cost by putting in this tunnel, costing this amount of money and doing this way? A. The pumping plant itself to take care of the water so it would not drown us, would cost as much as the tunnel, not counting the running expenses.

Q. Then you would have to have your men and fuel to run it all the time? A. Yes, sir.

Q. And you would have to keep repairing it and renewing it? A. Yes, sir. Of course, that tunnel besides taking care of the water of No. 1, takes care of the Gypsy Grove water and will take care, within a year or two, of No. 5 colliery water, and, if we can make an arrangement with the Delaware and Hudson, it will take care of the crop of water of the new operation that we expect to put upon the virgin lands about which I told you this morning.

Q. The cost of that tunnel, does that go directly into the cost of producing coal, or is that one of those items of expense that does not go there but goes into capital account somewhere or somehow that you do not know about? A. It goes into mining expense.

(Counsel for Government objects to this whole line of questions. The facts adduced are wholly immaterial and throw no light on the issues and many of them are matters which are perfectly obvious, and which the court knows as well as the witness.)

By JUDGE MOOT:

Q. Is this the only tunnel you have? A. We are driving another at Pittston.

Q. For what mine? A. It will take care primarily of the Butler mine, or Butler colliery, but it will take care of the watershed on the southeasterly side of the basin for a length of between three or four miles. It will also prevent the water from running down to No. 14 and Ewen collieries.

Q. That tunnel will cost about how much? A. Over $100,000 also. That is not completed. We have made an arrangement with the Delaware and Hudson by which we drain the No. 2 shaft of Forest City colliery by tunnel also.

Q. That arrangement by which you drain that by tunnel, you mean by that that you pay them for using their land to put the tunnel through, or something of that kind? A. For using the tunnel; they drove the tunnel and use the tunnel also.

Q. And you pay them for the use of the tunnel? A. Yes, sir.

Q. So much a year? A. Yes.

Q. To drain your mine? A. We pay them $20,000; $10,000 down and the $2000 a year until the $20,000 are paid.

Q. For draining your mine by the tunnel in that way? A. Yes, sir.

Q. We spoke of the strikes and the strike of 1902. The strike of 1902 resulted in a strike award which gave a sliding scale of wages, on which, as coal went up, the men were paid more money by fixed percentages. How do you get your award for the men employed at the companies which you manage, as to what the basis is on which those men are to be paid their sliding scale? A. We get the percentage from C. P. Neill.

Q. Have you anything with you that will give us the form of the notification to you? A. Yes, sir.

Q. Will you not just read it into the record just as it comes to you, so we can see just how it is done? A. (Producing paper and reading.) "The average price of white ash coal of sizes above pea coal sold at or near New York between Perth Amboy and Edgewater, and reported to the Bureau of Anthracite Coal Statistics for the month of March, 1909, was $4.76 per ton f. o. b. This price entitles all miners and mine workers included in the awards of the Anthracite Strike Commission to an increase of five per cent. on the rates of wages fixed in said awards. Respectfully, Charles P. Neill."

Q. Dated what? A. No date, except it has the date of its receipt "Hillside Coal & Iron Company, office of superintendent, April 10, 1909, Scranton, Pa."

Q. That is when you received it? A. That is when it was received by the superintendent. It comes from 1429 New York Avenue, Washington, D. C.

Q. Charles P. Neill is an official of the United States Government? A. Yes, sir.

Q. You have about how many men in the employ of the Pennsylvania and Hillside Companies? A. Between twelve thousand and fourteen thousand.

Q. Have you ascertained for me, at my request, what the figures show have been paid to the men in the employ of those two companies under this strike award as extra wages of that kind from the time the strike award was made in 1903 down to the time when your figures were made? A. The following figures were made under my direction, covering the period March, 1908, to February, 1909, inclusive.

Q. I want now the aggregate first before we come to that, not for a year, but for the entire time, I think you took them off. A. For the entire time?

Q. Yes, for both companies. A. $1,335,000.

Q. $1,335,000 have been paid to the twelve thousand or fourteen thousand men employed by these two companies from the time the strike award was made until when? A. Down to and including February, 1909.

Q. As the extra wages those men got for their share of what results from the prices of coal being more than four dollars and fifty cents during the time they averaged more than that amount? Yes, sir.

Q. Have you had the figures taken off and put into the form of a statement there, showing how that runs, month by month, for a year? A. Yes, sir.

Q. For what year? Beginning what time in what year and ending what time in what year? A. From March, 1908, to February, 1909, inclusive.

(Judge Moot offered the paper in evidence, marked Defendant's Exhibit 3, C. H. Guilbert, Examiner.)

Q. That amount is in addition to the shorter hours and the ten per cent., among other things, that were given to the men by the strike award of 1903? A. Yes, sir.

Q. That award ran for three years, did it not? A. Originally.

Q. Then when that three years was up, there was a suspension from April to the first of May, 1906, because the men demanded more? A. Yes, sir.

Q. But ultimately they renewed relations with the companies on the basis of that award for another three years? A. For another period of three years.

Q. That period of three years was up to the first day of April, 1909, was it not? A. Yes, sir.

Q. And about February, 1909, the men again began to make demands for something in addition to anything they got under that award, did they not? A. They had a convention in January.

Q. And began to make demands? A. Yes, that is right.

Q. You are a member of the committee who represent the various operators, independent and otherwise, of the various coal regions, who are in conference with these men on the subject of whether their demands should be granted or not, are you not? A. No, sir.

Q. You are not a member of the committee? A. No, not a member of the committee.

Q. Have you anything to do with the men in any way or these demands in any way? A. I am a member of the sub-committee to take the matter into consideration, to formulate some plan, but I was not a member of the committee to meet the miners.

Q. So that the thing has come under your own personal observation? A. Yes, sir.

Q. Has any agreement yet been made with the men on their demands? A. No, sir.

Q. What were their principal demands? A. Eight-hour day; check-off; recognition of the Union; weighing the coal; ten per cent. increase; that is all I remember.

Q. Aside from the ten per cent. increase, these demands as you gave them, struck me as being things that were considered by the Strike Commission back in 1902 and 1903; is that so, or are some of them new? A. None of them are new.

Q. They were considered at that time? A. They were considered at that time, as I recall it.

Q. What do you say about the difference in cost between the mining cost of the different mines in the Wyoming region? I do not mean now the extreme limits, when they are almost worked out or just getting started, but, assuming that those mines are being operated at full capacity, under normal conditions, as well as the mine itself will permit of, with all the economies that that mine will permit of? A. Sixty to eighty cents a ton.

Q. Difference in mining cost? A. Yes, sir.

Q. In other words, one mine that would be just making expenses at a certain price would see another mine right alongside of it making sixty or eighty cents a ton? A. Yes, sir, that is right.

Q. Is that difference of sixty or eighty cents what you might call an average difference, or is that a little more than the average difference? A. It is more than an average difference.

Q. What would you say was what you might call an average difference between the mines up in that region, so far as you know them? A. About fifty cents a ton.

Q. In other words, where certain mines would simply be making a living cost and nothing more, other mines would be making fifty cents a ton at the same time from their coal? A. Yes, sir.

Q. What do you say, from your knowledge of the mines that come under your observation, as to whether the majority of the mines belong to the class that can make the fifty cents, or belong to the class that cannot make much of anything, assuming that some of them cannot make much of anything—on that basis of com-

parison, or can you not divide them up that way? A. Not very well. In arriving at the fifty cents, I took the cost of coal at a number of collieries that I had in mind, and then the other cost I took from another group of collieries, so it would be very difficult to say just how it would apply to collieries of the region as a whole, you see; but I do know that there is that difference existing in the collieries with which I am acquainted.

Q. Taking your lowest experience of cost of operation as compared with your higher experience of cost of operation, under normal circumstances, perhaps you can tell us as to whether there will be more mines that will have the lower cost of operation as compared with the mines that have the higher? A. I think the majority of the mines would have the higher cost. That is an opinion.

Q. Not on the basis of sitting down and carefully figuring it out? A. No, sir.

Q. I assume—and you may say whether it is true or not—that where you get the lower cost of operation, your minimum cost on which you base your operation, is usually where one or more of these big veins is still where you can get at it and in good condition to mine? A. Where the vein is thick, of good quality, with no partings of slate, or impurities in it, with no sticking to the roof or bottom, with little water or gas to contend with, and with the lay of the vein favorable to transportation and to taking care of the water, there is where we get the cheap cost. In other words, the cheap cost arises from the natural conditions or characteristics.

Q. Now you have the Hillside and the Pennsylvania mines under your management? A. Yes, sir.

Q. The Hillside has how many mines? A. Five.

Q. The Pennsylvania how many? A. That has ten.

Q. Making fifteen in all? A. Yes, sir.

Q. How many mines in that entire fifteen have you that you can say have these advantageous features, natural features, that result in giving you what you might call normal minimum cost of operation? A. I should say out of the fifteen nine.

Q. Nine? A. Yes.

Q. Are any of those Hillside Company's? A. Yes, sir.

Q. Which one or ones? A. The Consolidated of the Hillside and Forest City of the Hillside.

Q. Those two? A. Yes, sir.

Q. Which ones of the Pennsylvania? A. No. 14, Ewen, Old Forge, Central, Barnum, No. 9 and No. 1.

Q. When the Pennsylvania mines came under your management, were you able to introduce any economies in any way that decreased the expense of their operation? A. The cost of coal at present rates and all that is more than it was when I became general manager for the Pennsylvania Company, but we have increased the production at present prices, the operations are more economical and they are more compact, and we are able, from a less number of collieries, to get a larger output, through the introduction of machinery and of various economies.

Q. So that, while this ten per cent. increase in labor cost in 1900 and 1902 and this sliding scale increase in labor cost and the increase in the cost of material has raised the cost of producing coal during all these years on the one side, by increasing your output and by introducing machinery and mine economies, you have been able, to a certain extent, to keep that increase in cost of labor and material from manifesting itself as it otherwise would? A. Yes, sir, that is right.

Q. Has the ten per cent. in the increase in the cost of labor, each time it was made, really represented the increase in the actual cost, or has the actual cost of labor been greater than that ten per cent.? A. It has been greater.

Q. Why? A. There is a less number of hours' work; you see, we came from ten hours to nine hours; the firemen were given eight hours; the engineers hoisting water were given eight hours; they are elements that entered into the increase, in addition to the increase in wages and, of course, material has increased.

Q. Can you give us any idea of the extent to which

material has increased? A. It has increased, in some cases, as much as fifty per cent.

Q. It has? Yes, sir.

Q. That increase in material alone, shows itself in an increase per ton in your mines, as mine cost is kept? A. Yes, sir.

Q. Of about how much? A. That is, you mean the increase per ton?

Q. On the output of a given mine for a given year, say. A. I have not made any comparison. Of course, I have all the records, but I have not made any comparison for that purpose. I could not tell you.

Q. Can you tell me about what the material cost is nowadays per ton in the mine? From about what point to about what point, or could you not do that, either? A. No, I could not tell. Our material costs now, as I recall, about thirty cents a ton. I know there was a time—of course, that is farther back than 1901—when it did not cost over twelve cents a ton.

Q. For material? A. Yes, for material. Of course, that increase in cost is due not only to the increase in price for the material, it is also in the quantity that we have to use.

Q. As your tunnel gets very long, you continue to have it put in props, and as the props get very expensive, that runs the expense up? A. Yes, but we are putting in iron rails now instead of wooden rails as we used to use, and in many ways we are using more material than we did; and, of course, the introduction of machinery increased the quantity of material we use.

Q. To what extent do fires cut any figure with your mining cost? A. We usually take that right in with the cost of coal. We have not differentiated the cost of a fire from the cost of coal at that particular colliery at that time.

Q. Do you have many fires? A. Yes, we have small ones quite often. We had one expensive one two or three years ago at the Ewen colliery.

Q. To what effect? A. A miner carelessly left some-

thing burning where we were taking out coal in the big vein pillars and it caught fire from that. We had to close that part of the work up with dams and flood it with water, by way of bore-holes from the surface, bore holes about two hundred feet deep, two of them, and in that way we got the fire out.

Q. That stops the operation while it lasts? A. In that part of the mine.

Q. Did it do any damage? A. What coal it burned. Of course, we worked very hard to keep it from—if we had not succeeded in putting in the dams it would have caused the stoppage of the Hoyt shaft of the Ewen colliery, No. 7 shaft and all the openings of No. 14 colliery. The damage you could hardly estimate the amount of if we had not taken it in time.

Q. Without going into each mine and its production, altogether these mines in your charge of these two companies, are producing about how much a year now? A. The Pennsylvania is producing four and a half million tons a year and the Hillside about a million and a quarter, or 1,250,000 tons.

Q. When the Pennsylvania came into your charge and management in 1901, it was producing about how many tons? A. In the neighborhood of two million tons, 1,800,000 tons, as I remember.

Q. That increase of the Pennsylvania tonnage from 1,800,000 or 2,000,000 to 4,500,000 tons, was that a gradual increase? A. A gradual increase.

Q. Year by year? A. Year by year.

Q. Your last year's production being your greatest? A. Being the largest.

Q. About how much more did you produce last year than the year before? A. I think about 300,000 tons, if I recall it.

Q. Has that increase of the Pennsylvania tonnage been due to the opening of any new mine, or has it rather been due to consolidations and other things you have described here, to increase capacity? A. Consolidation and development of the old mines.

Q. During that same period of time, say from 1899 to the present time, has the Hillside increased its production any? A. Yes, sir. 1899 you say?

Q. Yes. A. Yes. According to my recollection, Hillside produced about 850,000 or 900,000 tons at that time, and now it produces about a million and a quarter.

Q. These mines of the Hillside, speaking broadly and generally, the different ones, just name them and tell us about how long is it probable that each one will last. A. Forest City will last from fifteen to twenty years. Erie will last probably ten years. Glenwood we expect to close down almost any time now.

Q. In other words, it is about worked out? A. Yes. The remaining coal will go to the Erie. Consolidated will run about ten years. Butler will run about twenty-five years.

Q. In the same way name the mines of the Pennsylvania and give us the probable life of those mines. A. That is harder. I cannot tell you. Some of them, No. 1, will be running fifty years from now.

Q. It will be? A. Yes, sir.

Q. Why is that so long lived? A. Because it has such a large field to draw from—unless, of course, we should increase its capacity and I do not think we will do that.

Q. Can you not give us the probable life of most of the Pennsylvania mines? A. Not very well.

Q. You cannot? A. No; I cannot.

Q. Can you give us the range for those mines, that they will run from such a time to such a time? Can you do that with probability? A. I should say from twenty to fifty years.

Q. How much unmined coal that you can mine—I do not mean is there in, but that you can mine and take out for market—do you estimate there is in the Pennsylvania mines as a whole at the present time? A. That I could not give you.

Q. Did you have any idea how much there was in the Pennsylvania mines at the time the management of those mines came into your hands? A. I had nothing to do with the estimate at all.

Q. Mr. Fuller, I think it is, one of the Government's witnesses, told us there was about 140,000,000 tons, he estimated, unmined in the Pennsylvania Coal Company's property when the Erie became a stockholder in that company in 1901. Have you any way of telling us whether you think that is a large or a small estimate for those mines? A. That approximates the estimate made by—that is the estimate that I have seen by W. F. Dodge.

Q. Who is W. F. Dodge? A. A mining engineer.

Q. An authority? A. Yes, he is an authority.

By MAJOR WARREN:

Q. An independent mining engineer? A. Yes, he is not connected with any of the companies.

By JUDGE MOOT:

Q. That estimate you have seen that he made was made about how far back? A. It was made prior to the purchase. My recollection is it was made in 1899.

Q. Have you any idea yourself, as the result of having handled these mines since, as to whether that estimate was above or below, or a fair estimate of the coal unmined at the time? A. I think it was below.

Q. You think it was? A. Yes, sir.

Q. You think there was more there? A. Yes, sir.

Q. When that property came into your hands there, were these ten mines all opened and developed except as you developed them more? A. Yes, sir.

Q. There was the Erie and Wyoming Railway connected with the various breakers of that time to serve those mines? A. Yes, sir, there was.

Q. It was what you might call a developed property, in good condition for operation as things then were? A. Yes, sir.

Q. It is in the Government's petition that the price paid for the Pennsylvania property, including its terminals at Buffalo and elsewhere, and this railway and all that and these mines and the unmined coal, was $32,000,000 in the aggregate, and it is charged that that was an exorbitant price. Have you any idea as to whether $32,000,000 for that property at that time, railways and terminals and mines

and unmined coal, would have been an exorbitant price? A. No, sir, I do not.

Q. You do not think it would have been an exorbitant price? A. No, sir, I do not think it would have been an exorbitant price.

Q. What do you say as to whether you think it would have been a low price for the property? A. Gracious, I would buy it over and over again.

Q. At that price? A. At that price.

Q. Even now? A. Even now.

Q. After all that has been taken out of it? A. Yes, sir.

Q. You think if it was purchased at that price it was bought for a bargain then? A. I think it was a bargain.

Q. You have spoken about the cars; you have nothing, as I understand, to do with the selling of this coal or anything of that kind? A. No, sir.

Q. Do you have supervision of the loading of the cars and the sending of it away? A. We put the coal in the big cars and my jurisdiction ends when it is in the big cars.

Q. At the breaker's mouth? A. At the lipscreens of the breaker.

Q. Then you cease to have any control over it? A. Of course, if there is a question as to the quality or preparation of the coal and a complaint is made, we will go and investigate that complaint. If that is jurisdiction, then we have jurisdiction to that extent; that is, a complaint of the way we are doing our work.

Q. Somebody complains that you have let a car go out that you should not, then you look it up to see whether he is right or not? A. That is right.

Q. I assume you have your inspector for the purpose of seeing that that work is done and he is under your supervision? A. Yes, sir.

Q. How do you get at how many cars you want? How is that car supply part of the business for all these fifteen mines managed? A. We ask the railroad companies for them.

Q. How long before you want them? A. The previous day.

Q. How do you do that? By telephone? A. By telephone or by direct communication. The railroad superintendent's office for the Erie and Wyoming Valley Railroad is upstairs, just above mine.

Q. The car supply for these fifteen mines runs all the way from how many cars to how many cars daily on the average? A. You mean for all the mines for the Pennsylvania?

Q. For the two companies. The lowest daily car supply for any one mine on the average is about how much and the highest is about how much? A. I should say it runs from about ten cars ——

Q. At which mine? A. I guess Erie is about the lowest.

Q. Up to about how many? A. Up to in the neighborhood of one hundred cars.

Q. At what time? A. It is only occasionally that we reach one hundred cars; No. 9, on the 27th of March loaded one hundred and sixty cars. No. 14 loaded about the same time, about one hundred and twenty cars. I would say that those two operations and Old Forge, would take in the neighborhood of one hundred cars a day.

Q. On a daily average? A. No, it would not go that high. It would go, on a daily average, about eighty cars.

Q. For all your fifteen mines there, putting them all together, you would have to have about how many cars a day? A. We take, for all that we control, between seven and eight hundred cars. We take coal from some individual operators, and that is included in the total.

Q. The individual operators, of that total, take about how many cars? A. Say about one hundred and fifty cars, I should say.

Q. Who are those individual operators? A. Jermyn & Co., the Temple Iron Company—I call the Temple Iron Company an individual operator, but you understand what I mean; Dolph Coal Company and the Greenridge Coal Company. That is about all.

Q. These cars coming in and you loading them, how

do the railway companies know where to take them to? A. We tell them.

Q. Where do you get your information as to where they are to go to? A. I do not understand your question.

Q. You put a manifest, or billing, or something on the cars at the time you load them, I assume? A. I thought you meant where they were put into the collieries.

Q. No. A. Where do we get the orders for the coal?

Q. Yes. A. We get the orders from Williams & Peters for the coal. They send the order to my office and my office transmits it to the colliery.

Q. How often do you get orders from Williams & Peters? A. Every day.

Q. Then your coal is loaded into these cars and the cars are marked or manifested, whatever you call it, are they? A. We give shipping directions to the colliery clerk—not the colliery clerk, but to the shipping clerk.

Q. Of what company? The railway company? A. No, to our own shipping clerk.

Q. And he puts something on the car to show where it is to go, does he? A. Yes, he makes out a manifest and the coal then goes to market, to the point to which it is consigned.

Q. Then all this coal of the two companies whose mines are managed by you is sold through Williams & Peters as commission merchants for those two companies? A. Yes, sir.

Q. Then the commission merchants for those companies send their orders daily to your office for the coal they want for the next day —— A. No, any time we can load it. Of course, they may give us specific directions, some customers may want it at a certain time and we try to send it to them at the time they want it.

Q. But what you are doing up there with those coal mines, is to mine coal that is being sold by those commission merchants for those coal companies? A. Yes, sir.

Q. You do not manage the selling yourself? A. We have nothing to do with it.

Q. Those commission merchants manage that? A. Yes, sir.

Q. You manage the production end? A. That is right.

Q. They order from you and you supply them? A. Yes, sir.

Q. To what extent does anybody intervene between those commission merchants who sell and you who produce? Are there any officials that intervene and, if so, under what circumstances and how frequently? A. The sales agents send their orders direct to me. There is no real intervention, so far as that part of the business is concerned.

Q. It is automatic then? A. Yes, sir. They send me the orders and I fill them.

Q. Suppose they do not sell—you are producing up there, running these mines to capacity and it is a dull month or something of that kind, and they do not sell quite as much as they usually do; what becomes of the coal then? A. We send it to a stocking point designated by our sales agents.

Q. Williams & Peters? A. Yes, sir.

Q. So that your coal that you are producing there goes to a stocking point designated by Williams & Peters, your sales agents, or goes to customers of Williams & Peters, the sales agents, who have ordered the coal? A. Yes, sir, that is right.

Q. Do Williams & Peters report to you daily what the coal is sold for? Do you know anything more about the sales, except as you infer from these orders? A. No; they place the price on the order they send us, but we pay little attention to that. Our business is to get the coal in the cars.

Q. You also know from these notes that you receive from Mr. Neill month by month, when the price is high enough, what the average price is at which the previous month's coal has been sold by everybody down here at tide, on which the wages of your miners are based? A. Oh, yes, and we get the average prices also ——

Q. From Mr. Ruley? A. From Mr. Ruley, for our sixty-five per cent. contract.

By MAJOR WARREN:

Q. I understood you to say, in answer to Judge Moot's question, that you are a civil and mining engineer by profession? A. Yes, sir.

Q. You took your degree at Lafayette, did you not? A. Yes, sir.

Q. What year did you come into the region to acquire any practical knowledge of the business? A. 1873.

Q. Have you been in it continuously ever since? A. Except when I was at college.

Q. Your first association was with the Hillside, was it not? A. Yes, sir.

Q. In what capacity? A. I started as a rod man on the engineering corps.

Q. Then did you gradually get into relations as an engineer for the company? A. Yes, sir, became chief engineer of the Hillside and also of the Northwestern Mining Exchange Company, which was a soft coal company.

Q. And had to do with their inside operations? A. Yes, sir.

Q. Do you recall, in the Spring of 1899, making an investigation, in connection with Mr. Luther and some other gentlemen, of certain properties offered to the Temple Iron Company for sale to them? A. Yes, sir, I do.

Q. Mr. Luther by-the-bye, at that time was associated with the coal business in what way? A. He was general superintendent for the Philadelphia and Reading.

Q. The Philadelphia and Reading Coal and Iron Company? A. Yes, sir.

Q. Mr. W. R. Storrs; was he associated with you in this investigation? A. He was. He was associated with the Delaware, Lackawanna and Western.

Q. In charge of which of their departments? A. Under his father, of the Mining Department.

Q. Mr. W. R. Storrs, then the superintendent of the Mining Department, is now dead, is he not? A. Yes, sir.

Q. And Mr. William H. Storrs is the one you mean? A. Yes, sir.

Q. He is now living in Mr. McReynolds' residence in

Nashville, Tennessee, is he not? A. I do not know. I thought he was at Knoxville.

Q. He is somewhere in Tennessee? A. Yes, sir.

Q. Mr. Luther; is he living? A. He is dead.

Q. Can you recall which properties you investigated? A. More particularly, that I was personally investigating, was the Forest Mining Company's property, known as the Raymond colliery. We took into consideration the property of the Newton Coal Mining Company and of the Mount Pleasant also.

Q. The Forest Mining Company and the Raymond colliery were operated by what concern? A. We knew it as Jones, Simpson & Co.

Q. And that was situated where? A. It was situated near Archibald in the Lackawanna Valley.

Q. That is north of Scranton how many miles? A. About twelve miles.

Q. If you remember, by what railroad were those people shipping their coal? A. By the New York, Ontario and Western.

Q. Do you remember, at that time, whether they were not under a sixty per cent. contract, so-called, with the Ontario and Western Railroad? A. Yes, as I recall it they were; that is right.

Q. The Newton Coal Company consisted of what has been called the "Twin Shaft" did it not? A. Yes, sir, the Twin Shaft and the Seneca.

Q. And also the Old Forge? A. Yes, but not our Old Forge. They were two Old Forges.

Q. No, not your Old Forge, but a mine belonging to the Old Forge Company? A. Yes, sir.

Q. The Mount Pleasant property, of which you speak, was a property that was operated by the Mount Pleasant Company was it not? A. Yes, sir.

Q. That was situated where? A. That was situated on the western side of the Lackawanna, within the limits of Scranton.

Q. And the Seneca was located where? A. That was located in the vicinity of Pittston, to the northeast of Pittston.

Q. And the Old Forge Mining Company's property? A. That was also in the same vicinity.

Q. Those collieries were controlled by Mr. E. L. Fuller, were they not? A. Yes, sir.

Q. That is to say now, the Newton, the Seneca, the Old Forge and Mount Pleasant; is that right? A. Yes.

Q. You had to do, then, with the investigations of all those collieries to which I have called your attention? A. Yes, sir.

Q. You remember they were offered to the Temple Iron Company at that time for sale at certain figures? A. Yes, sir, they were.

Q. In that investigation you were associated, as I understood you, with Mr. Storrs, Mr. Luther and some other men? A. Yes, sir.

Q. Do you know whether the Temple Iron did or did not buy those collieries then offered to it? A. They did not buy them.

Q. Did you advise against their purchase or did you not? Can you remember? A. My recollection is that we advised against the purchase of the Raymond colliery, the Forest Mining Company——

Q. That is the Jones Simpson operation? A. That is the Jones Simpson operation. I do not recall as to the other operation.

Q. In your investigations did you make inquiry as to the amount of coal left to be mined, the character of the colliery equipment, the cost of mining, and the various things that would naturally enter into the proposition as a commercial transaction? A. We did, yes, sir.

Q. If you advised against buying them, it was because of not being satisfied with the figure, was it, or what was the reason? A. It is the Forest Mining Company I recollect more particularly, and I also recollect my own impression. My own impression was that, at the price named, from an operating standpoint it would not be a good purchase.

Q. In other words, that the Temple Company could

not hope to make money out of it if it bought it? A. Yes, sir.

Q. What is your recollection as to the outcome of the investigations in which you participated to some extent, as to the Newton Coal Company, Seneca, Old Forge and Mount Pleasant, as to figures? A. They were not purchased and the reason for not purchasing them I cannot say exactly, but I presume it was because the price was too high.

Q. So far as you participated in it, that was the thought that impelled you to vote against it? A. Yes, sir.

Q. That is, that it was your personal impression that the Temple Iron Company could not make money if they purchased them at the figure at which they were offered? A. Yes, sir.

Q. As a matter of fact, you know of another operation which was offered to the Temple Iron Company in more recent years, do you not? A. Yes, sir.

Q. Which was what company? A. The Mount Jessup.

Q. Did you make any investigation at the time that was offered to the Temple Iron Company people? A. We did.

Q. What was the result of your investigation? A. We concluded it was not wise to buy.

Q. At the figure they named? A. At the figure they named.

Q. What was the outcome of that? Did they buy it? A. They did not buy.

Q. Do you happen to know what became of the Jones Simpson operations known as the Forest Mining Company at the Raymond colliery at Archbald? A. It was bought either by the Elk Hill Coal and Iron Company or the Scranton Coal Company.

Q. Which are supposedly coal companies of the New York, Ontario and Western? A. Yes, sir.

Q. And after this I suppose? A. After this.

Q. Do you know how long? A. I do not recall.

Q. Do you know what became of the Newton Coal

Company, the Seneca, the Old Forge and the Mount Pleasant? A. The Lehigh Valley bought them, at least it operated them.

Q. That is, the Seneca and Old Forge? A. Yes, sir.

Q. How about Mount Pleasant? A. Mount Pleasant, the New York, Ontario and Western interests bought that.

Q. You do not know what coal company bought it? A. I do not know whether it was the Scranton Coal Company or the Elk Hill Coal and Iron Company.

Q. Do you know how long after you turned down that proposition of purchasing it on behalf of the Temple Iron Company these properties were bought by the Ontario and Western interests? A. I do not.

Q. You said that the Lehigh Valley operates Seneca and Old Forge, but you do not know whether they bought the stock of those companies? A. No, I do not. I have no connection with that, so that I would know.

Q. Prior to your turning down the offer to the Temple Iron Company to buy the Jones Simpson operation, did you make a careful examination into the plant? A. Of the Jones Simpson?

Q. Yes. A. Yes, I did.

(Counsel for the Government object to this line of examination. Whether this witness turned down the proposition to purchase or not does not throw any light whatever upon the issue in this case.)

(To which counsel for the Temple Iron Company replies that, inasmuch as it is alleged that the Temple Iron Company was organized for the purpose of acquiring properties and obtaining control of independent operators and indulging in monopolistic tendencies, he thinks it very material.)

By MAJOR WARREN:

Q. Did you investigate the books to ascertain what their records showed as to their tonnage? A. No, sir.

Q. I do not know whether you are familiar with Mr. Luther's handwriting or not. Are you? A. I am not.

Q. Dividing the Wyoming basin or field into the

Luzerne County or the Wyoming Valley, and Lackawanna County or the Lackawanna Valley, and calling your attention especially to the northern part of that field, that is to say, Lackawanna County, can you tell us what the total thickness of coal in that county was originally, on an average? A. I do not recall.

Q. Can you tell us what proportion of it, speaking broadly, is left to-day unmined? A. No, I cannot. I had the figures in mind, but I do not recall them.

Q. Can you tell the extent, if any, to which the winning of pillar coal is affected if the pillars were mined by old methods or by more modern ones; that is, the ability to withdraw the pillars from the mines by the methods in use in the olden days as compared with those in use in the new? A. We can win more under the new methods than we could under the old. We now expect to win the pillars. Thirty or thirty-five years ago, or forty years ago, there was no such expectation, and, naturally, they did not take the same care that is taken now.

Q. How about it if you have to support the surface? A. If we have to support the surface, we will either have to put in an artificial support or leave the pillars there.

Q. Has any method been devised that is within reasonable financial limits, of supporting the surface so that you can remove the entire pillar? A. There is no method that can be universally used. We are flushing the mines with culm now and where that can be done we are winning a large part of the coal; but our winning of pillars has not been carried on underneath the surface, that is, to any great extent, that is so valuable that we have been compelled to put in artificial supports. In other words, we are leaving that until the last.

Q. Then it is still an unsolved problem, how you are going to be able to win pillars, especially where you have to provide for surface support? A. Yes, sir.

Q. Can you give us approximately the coal acreage of Lackawanna County, its number of square miles? A. No, I cannot.

Q. Can you tell me approximately the proportion of

that surface which is occupied so as to require its being supported? A. No, I cannot do that.

Q. You spoke of it as being in the form of a canoe? A. Yes.

Q. The part that will require support, due to valuable improvements, represents what part of the basin of that canoe, say from Pottstown to Carbondale? A. It would be underneath the towns, and at the bottom of the canoe.

Q. Can you tell me the difference in cost of maintaining the steam plants at collieries to-day as compared with ten years ago? A. You mean the cost of maintenance or the dimensions of the present steam plants as compared with the old ones?

Q. I mean cost of installation and maintenance, due to the necessity of pumping because of the larger, increased openings. A. The cost is much more now, because we have plants of about three thousand horse-power, where ten years ago we did not have plants over twelve hundred horse-power.

Q. You are speaking now by generalizations. Can you give me any comparative figures in per cent. of increased cost in obtaining pumping plants to-day as compared with ten years ago, that fairly enters into the cost of the manufacture of coal? A. No, I cannot, not now. I would have to think that over and would have to go into my figures.

Q. Speaking generally, can you tell me as to the northern end of the Wyoming field, or as I call it, the Lackawanna field, what veins are left now to be mined? A. The thinner and the dirtier and the more unprofitable mining, that is, not only in veins unmined, but also in veins already mined.

Q. Does that extend as far south into the Wyoming field as to cover the Temple Iron Company's operations there, that is, Mount Lookout? A. Yes, sir.

Q. And Forty Fort? A. Yes.

Q. That being so, can you tell me the extent to which rock must be taken down in handling these small veins in first mining, and how much of an effect that has in the

matter of cost, within the last ten years? A. We take down as much as three feet and a half, or take up three feet and a half of rock.

Q. How do you pay for that? A. We pay for that by the yard.

Q. That is what they call a yardage allowance, is it not? A. Yes.

Q. To whom do you pay that? A. To the miner, or the man that takes it up. Ordinarily it is the miner.

Q. Is that outside of the contract price you pay him by weight or by cars, as the case may be? A. Yes, sir.

Q. Has that figure changed any in the last ten years? A. Yes, sir. We are mining much more coal requiring the taking down or taking up of rock than we did ten years ago.

Q. Can you give me any idea of the per cent. to which that adds to the cost of first mining in the thinner seams? A. You can mine a seam of coal six feet thick for forty cents a ton less—that is, you can mine the six foot vein for forty cents a ton less than a four foot—I am talking from memory, you know—and you can mine a six foot vein eighty cents a ton less than you can a three foot vein. I could put it the other way; the three foot vein would cost eighty cents more, but I am taking the six foot vein as the basis. When you get down to a two and a half foot vein, it will cost from one dollar and ten cents to one dollar and twenty cents a ton more to mine the two feet and a half vein than a six foot.

Q. Will you tell me the average thickness of the veins in that northern field there which are now remaining to be mined? A. It would be somewhere between three and four feet.

Q. That would add what, as a factor of additional cost since 1902, for the production of coal as compared with the veins operated prior to that time? A. Between seventy and eighty cents a ton. The cost goes up enormously when you mine small veins.

Q. Will you tell me the necessity for the introduction of electric haulage in the last ten years? A. For two

reasons; one is that the distance that you have to haul, the mule haulage becomes expensive, and then the electric haulage does not take as much height. An electric locomotive is not, in the clear, over four feet and a half, I should say.

Q. You cannot get small enough mules in other words? A. No. The electric locomotive, I should have said, will not be over three feet and a half high, and therefore we do not have to take down as much rock.

Q. What is the thinnest seam that is being mined up in our section, that you know of to-day? A. That is, a seam as a whole?

Q. No, I mean how thin veins are now being worked. A. We are working as low as two feet and a half. We tried to work lower than that, but it cost too much money and we quit.

Q. There is coal in seams less than that? A. Yes, sir.

Q. But to-day that cannot be mined profitably? A. No.

Q. In mining seams of that kind, which you are now mining, how much top rock do you have to take down? A. In places we have to take down as much as three feet and a half of rock, or take up that quantity.

(Counsel for the Government objects to this line of questions. Details of what it costs to move rock in a mine is not involved in this case, and throws no light on this issue whatsoever).

MAJOR WARREN:—To which counsel for the Temple Iron Company desires to place upon the record the statement that the Government complains that my clients, who are interested in maintaining the sixty-five per cent. contract, so-called, are interested in maintaining what they style a mere device, and that it is not an honest contract for the purchase and sale of coal at the collieries, as we allege it to be; and, second, they claim that we are a part of a conspiracy to maintain the prices of coal at exorbitant figures. This evidence is offered for the twofold purpose—and I am glad of the opportunity of stating it on the record—first to show the validity of the contracts before we get through with it, and, second, to show that the present prices are not the

result of any combination or conspiracy, are not artificial prices which ought to be lowered, but are only such prices as can insure my clients a fair return for their investment ir their business as a business proposition; and this evidence, together with much more which I intend to offer, will be for the purpose of showing the eminent fairness and propriety of such prices as the Government has shown, by the schedules they have offered among their various exhibits, to be the current prices of anthracite coal. In other words, the Government alleges, as one of the main props of its case, an exorbitant price for coal and alleges that that is evidence of an alleged conspiracy.

By MAJOR WARREN:

Q. You have already given me your best judgment as to the extent to which the taking down of the top rock is a factor in the mining cost of coal in such thin veins? A. Yes, sir.

Q. To what extent, in the various operations in our section with which you are familiar, are they now mining veins which require the taking down of some top rock, or taking up of some of the bottom rock? A. I should say sixty to seventy-five per cent.

Q. How close are they in all of the operations there, to the point of necessarily removing rock in order to get at the coal in the thinner veins, although they may not yet be actually entering upon that class of veins? A. Do you mean where they will have no coal where they will not have to take down rock?

Q. Where they will have no coal, or appreciable coal, if they continue, without entering into veins where they will necessarily have to take down top rock or take up bottom rock. A. Of course, there will be some operations that will not have to take down any top rock, or remove any rock, for many years. For instance, take our No. 1, in the Big vein, that we opened up at the tunnel. They will not have any for quite a number of years; but, I should say, within the next ten years, that ninety per cent.—from ninety to ninety-five per cent.—of all the coal would come out of those veins, when some of it would have to be taken up, or some rock removed, I mean.

Q. To what extent does the removal of that top or bottom rock and the necessary loss due to blasting affect the coal in the seam itself and reduce its value? A. The smaller the seam, the more the small sizes reduce the quantity of prepared sizes you can get out of the seam of coal.

Q. They are making up in our section there, you would say what proportion of sizes below chestnut? A. About forty per cent.

Q. How much more of the by-products—you call the sizes below chestnut by-products, do you not? A. Yes, sir.

Q. They are all made at a loss, or are any of them made at a profit by themselves? A. They are all made at a loss.

Q. How much more is there added to the by-products in the effort to win the coal from these seams in which you say now sixty per cent. of the operations are involved, due to the removal of the top rock and the increased wastage due to blasting those smaller veins? A. That is very hard to answer.

Q. You would not undertake to put it in a percentage? A. No; I would not undertake to do that.

Q. Ten years ago what proportion of the total output of a colliery was manufactured into the by-products? Was it about the same as to-day, or has it differed? A. It is practically the same.

Q. Has the increased trade in anthracite coal in the last ten years increased in the same proportion in the prepared sizes and in the by-products or the smaller sizes? A. It has increased in the smaller sizes and the by-products.

Q. I understood you to say it was about the same proportion ten years ago as to-day, so far as the preparation made in a colliery operation? A. Yes, sir.

Q. And yet you tell me there has been a larger increase in the trade for the by-products in the last ten years than there has been in the prepared sizes, as they are called? A. Yes, sir; that is right.

Q. I cannot quite figure that. A. I understand what you mean. Of course, in saying sixty per cent. and forty per cent., that is general. That would hardly include the coal won from the banks.

Q. What you ordinarily speak of as washery coal? A. As washery coal. That would increase it. That would make a change in the proportion. I know that there has been an increase in the consumption of the by-products and there have been more made. The difficulty with me is to differentiate between the percentage based upon the coal shipped and the coal produced. That was bothering me just now. We make our percentage upon the coal produced and not on the coal shipped.

Q. In other words, you make your percentage on the colliery production rather than the colliery and the washery combined? A. Yes—well, we do not make our proportion on the shipments, we make it on the production. Of course, it is very hard ——

Q. What is the difference between the shipments and the production? A. Local consumption.

Q. Also steam boiler consumption? A. Also steam boiler consumption, and we include in our basis all that comes out of the mine waste and all. Of course, there must have been a difference in the proportion of prepared coal and the by-product if the consumption of the by-product has increased, but I have the figures in mind that we had before the Mine Strike Commission, where we said it was sixty and forty per cent. That is practically what we made it, but it must differ now. Just how much, I do not know.

Q. Do you know how much more prop timber you use now than you did ten years ago? A. No.

Q. Do you know how much more it costs, if any? A. We used to buy it for a cent and three-quarters a foot—that is a six-inch end; now we are paying two and three-quarters and three cents.

Q. Can you approximate the extent to which you are obliged to use it now more than before, that is the quantity, whether it is twenty per cent. more, or ten or thirty? A. No, I cannot.

Q. Do you use it more? Can you say that? A. Oh, yes, we use more. I said that this morning.

Q. Can you tell me the extent, if any, to which the reduction under the award of the Strike Commission from

a ten-hour day to a nine-hour day affects the production of the collieries?

MR. MCREYNOLDS:—I object to that. The whole matter was gone over in Judge Moot's testimony.

JUDGE MOOT:—He told me they had cut it down from ten hours to nine hours and that made something more than a ten per cent. increase; but I did not ask him what the one hour difference made, which is Major Warren's question.

A. It is very difficult to answer that question, because we are continually making improvements and the output of our collieries is increasing. To say just what difference it has made in the capacity of the collieries is very difficult.

Q. You could not answer that then? A. No.

Q. I would like to ask you, as I know you are thoroughly acquainted with it, to what extent, if any, has the efficiency of labor changed since the award of the Strike Commission? A. It is less efficient. There is not the same discipline that there was before.

Q. To what extent does that enter into the cost of the manufacture of coal? A. It increases the cost.

Q. Can you give me any estimate of that? A. That is difficult to do.

Q. What are the things that you have put in breakers since 1902 that are now factors in the preparation of coal that were not in them before that? A. Our patent slate pickers and jigs, and also shakers. The regular process has materially changed in our region since 1902 in those respects. We now, instead of round screens, use shakers, because we can get a better preparation. We use machines for picking the coal instead of boys and men.

Q. Can you tell me the difference in the cost of equipment of a breaker to-day as compared with one ten years ago? A. It is very much more expensive.

Q. Have you not any figures as to the cost of equipment of breakers within the last six, seven or eight years, with the various machines that were not in them before, I mean? A. It is very hard to say, because——

Q. You could get that data, could you not? A. I could get it; but to have those figures at my tongue's end, not expecting to be put on the witness stand to-day at all, that is difficult.

Q. Do you know whether machinery has increased in cost, and if so, to what extent, speaking broadly now? A. Oh, it has increased in cost.

Q. But you could not give us an estimate of the proportion of the cost? Could you give me a statement of the percentage of the increase offhand? A. I could not, offhand. I would have to get my table of costs and go over them.

Q. Could you tell me the difference in the cost of a breaker to-day and one ten years ago? A. In percentage?

Q. Yes. A. I would say it cost fifty per cent. more.

Q. You spoke of this northern field as being in the shape of a canoe. A canoe has rather sharp sides, you know? A. Yes.

Q. There is a mountain range which forms, or rather there are two mountain ranges or hills, if you call them such, that form the sides of this canoe, are there not? A. Yes, sir.

Q. And they parallel the bottom of the canoe, so to speak, all the way up that northeast and southwest course you spoke of? A. Yes, sir.

Q. These colliery operations, generally speaking, are where with reference to the sides or flat bottom part of the canoe? A. They are on the sides.

Q. That means what in the matter of getting the materials up to the breaker, such as you use there and the product away from the breaker such as you sell there; does it make it expensive? A. It makes it expensive.

By JUDGE MOOT:

Q. These cars that come there for your coal, how is it as to whether they come there empty as a rule or whether they come there loaded? A. They come there empty.

(The statement of Mr. Platt, referred to on page 437, is as follows.)

MR. PLATT:—There is a proceeding pending before the Interstate Commerce Commission, brought for the purpose of reducing the tidewater rate on anthracite coal. The testimony has been partly taken in that case before the Commission, and the Commission, at its former hearing, adjourned to Monday, April 19th, with direction to the Lehigh Valley Company, the defendant in that proceeding, to proceed from day to day during all of that week and to be prepared to proceed from day to day on the following week. There is no possibility that I can see now of changing that assignment, and I am therefore unable to go on with the taking of testimony in this case while that proceeding is pending, and I give notice to all the parties that I will be unable to do so and will not want any testimony taken during that time.

MR. MCREYNOLDS:—Do you mean for everybody?

MR. PLATT:—Yes. I desire to be present as representing the defendants, the Lehigh Valley Railroad Company and the Lehigh Valley Coal Company.

MR. MCREYNOLDS:—Counsel for the Government desire to put counsel for defendants on notice that they insist that the proof in this case shall be taken with the utmost expedition, and that they will not assent to an adjournment of the character indicated by what has been said just above. The Lehigh Valley Railway Company has many counsel to represent it, and, if it is impossible for Mr. Platt to be present, other counsel may be. This matter was brought up before the court last Monday in Philadelphia, when the time for taking proof by the defendants was fixed to end on the first day of July, and the Government shall insist that that order be strictly complied with, and counsel are so advised.

MR. PLATT:—With every desire to go on with this case, the counsel for the Government suggests absolutely impossible conditions. There is no other counsel for the Lehigh Valley who has made the preparation necessary to go on with this case and if the Government officials insist on our proceeding in the other case, it is impossible for me to be present in this case.

MR. MCREYNOLDS:—Counsel for the Government renew their insistence that this case proceed with expedition and without adjournment. Government counsel would also like it to appear upon the record that, during most of the sessions when the evidence was being introduced on the part of the Government, Mr. Platt has not been present at all.

MR. PLATT:—I came into this case because Mr. Johnson was so overburdened with other cases that he could not go on with this case. I have prepared this case and it has required a large amount of preparation. I cannot go on and turn it over to somebody else and, the other case having been brought on for hearing, I cannot be in the two places.

(At 5 P. M. adjourned until Thursday, April 15th, 1909, at 10.30 A. M., to meet at the same place.)

Met pursuant to adjournment, Thursday, April 15th, 1909, 10.30 A. M., at the Astor House, New York City.

Present—The Examiner; Counsel present—Messrs. McReynolds, Todd, Moot and Warren.

CAPT. W. A. MAY resumed.

Direct Examination. (Continued.)

By MR. WARREN:

Q. You recall yesterday you spoke to me about the proportion of prepared and of smaller sizes, made in about 1899, as compared with about 1909. You remember, at least as I recall it, you said it was apportioned practically the same? A. Yes, sir.

Q. I think you said there was a larger product per colliery of the smaller sizes to-day, which was sold. Can you explain to me that apparent inconsistency? A. Yes, sir, I can. The sixty per cent. and the forty per cent. is as we generally speak of it. The figures, the sixty per cent. I had in my mind for 1901, or in the neighborhood of 1899, as near as I could get at it, were the figures

put before the Mine Strike Commission. They made the prepared sizes sixty per cent. and the steam sizes forty per cent. They included in their steam sizes the lump coal. We included the lump coal in our prepared sizes. The difference in the amount of lump coal made in the ten years ending in 1901 was about five per cent. The amount of lump coal made in 1905, from the figures I have seen since last night, made the lump coal about two and three one-hundredths per cent. There has been a reduction in lump coal, and the increase is in what we call the by-product making it; although on the 1905, the proportion, that included washery coal, by the way, was thirty-nine per cent. of the small sizes, and sixty-one per cent. including lump coal.

By JUDGE MOOT:

Q. For all the regions, or some particular region? A. That is for the entire region; that is, for the Wyoming, for the Lehigh, and for the Schuylkill; that is the whole thing included washery product. I know as an absolute fact that there is an increase in the by-product at our breakers, because, since we have had charge of the Pennsylvania Company we have built washeries at every colliery that we have, except No. 5 and Gypsy Grove, to wash these by-products. There must be an increase. I know that.

By MR. WARREN:

Q. You spoke yesterday of sending certain sizes at certain times to stocking plants. Do you recall that? A. Yes, sir.

Q. Will you tell me the necessity, if there be one, of the maintenance of stocking plants as a balance to the changeable market demands, and the extent to which that has increased in the last four or five years, and what is its consequence, if any, in the operation of the colliery? A. Certain sizes are called for at certain times of the year. The steam sizes are not wanted in the summer. Of course in the modern operation we make the steam sizes at the same time we make the other sizes, and do

not send it to the bank, as they used to do in the old days. So that for the summer surplus, we must have a place to put it.

Q. Or it would have to go to the bank? A. Or it would have to go to the bank.

By JUDGE MOOT:

Q. By which you mean the culm bank? A. Yes, sir.

By MR. WARREN:

Q. Which means a waste? A. Yes, sir, a waste. If we picked it up again it would be a waste. The putting down and all that, and the danger of loss by fire. We put it down not as a size, but we put it down as culm. Since there is a reduction in price in the spring, there is a demand for Egg, but, in the fall, or toward the fall, the demand for Egg falls off, that is, generally speaking. But we then try to break in down as much as we can, so as to avoid stocking. What we cannot break down we send to some stocking point, to be picked up when the demand calls for it. Of course that would not apply for every year. Some years it may be that there will be no demand for Chestnut. That I remember distinctly occurred in 1894.

By JUDGE MOOT:

Q. 1904? A. No, sir, 1894. When we had the panic of 1893, the people who used Chestnut in base burners, only ran one fire instead of two. Therefore the demand fell off. We had to put it in the stock. Those things came into the business at varying times, in different years, so that we must have a place to put the surplus.

By MR. WARREN:

Q. Tell me the amount that at times, if you can recall, of different sizes has been stocked or stored? A. For our companies, I remember one year we had one hundred thousand tons of Egg in stock. We now have of Barley one hundred and thirty thousand tons stock. We rarely have any Chestnut stocked. We have quite a stock of Stove, but that is a size that moves quite readily. The sizes we put in stock usually are Egg, Pea, Buckwheat, Rice, and Barley.

Q. To run a breaker, is it necessary to make all the sizes? A. Yes, sir.

Q. You cannot shut off certain sections of it, and only run certain preferred sizes? A. That is right.

By JUDGE MOOT:

Q. You mentioned taking over, or becoming manager of the Pennsylvania properties in March, if I remember correctly, 1901. Is that correct? A. Yes, sir.

Q. Now are the Pennsylvania properties all contiguous to each other, or are they scattered? A. They are scatttered, in a sense. There is a group of them in the vicinity of Pittston.

Q. A group in the vicinity of Pittston? A. Yes, sir.

Q. In the vicinity of Pittston, there is about what acreage and what mines? A. I cannot tell you the acreage. The mines are No. 14 colliery, Ewen colliery, No. 6 colliery, No. 9 colliery.

Q. And those collieries there, are they average for the entire Pennsylvania mines, or a little better, or a little less than the average; or cannot you describe them in such a way at all? A. They are a fair average, I should say.

Q. And the coal from those mines about Pittston, when you took charge of them, was moving out over what railway lines? A. Over the Erie and Wyoming Valley.

Q. Does it still move over that line? A. At some seasons of the year.

Q. And at other seasons of the year it moves over what line? A. Over the New York, Susquehanna and Western.

Q. Do you know what consideration determines which of the two lines it moves over? A. The point to which we want to send the order.

Q. If the order is to go to a point more conveniently reached by the Susquehanna and Western, it goes that way? A. That is it.

Q. And if more easily reached by the Erie, it goes that way? A. Yes, sir.

Q. And suppose the order is received at a time when

the Erie is congested, and when the Susquehanna is not congested, and it is an order to tide, then what? A. I do not know about that.

Q. You could not tell about that? A. No, sir.

Q. That is the most southwesterly group of the Pennsylvania mines, is it? A. Yes, sir.

Q. The next group of Pennsylvania mines is about where? A. In the vicinity of Avoca.

Q. What mines of the Pennsylvania are in that vicinity? A. Barnum, Central and Old Forge.

Q. Is the land upon which those collieries are situated adjacent to the land upon which the Pittston, so-called, collieries are situated? A. Barnum and No. 9 are on adjacent properties; but none of the others is adjacent to the last group I gave you.

Q. The distance from the first group you gave, at its most southwesterly point, and the distance from the last group you have given, at the most southwesterly point, is about how many miles? A. I should say about eight miles—between seven and eight miles.

Q. And across the valley, the widest separation of these mines is about how many miles? A. About two miles.

Q. The next group of Pennsylvania mines is where? A. At Dunmore.

Q. That is a point still further to the northwest? A. Northeast.

Q. That point is about how far from the first group of mines at Pittston? A. About fourteen miles.

Q. What group of mines are there of the Pennsylvania Coal Company mines? A. We call it the Dunmore group. There is No. 5, Gypsy Grove and No. 1, which are the names of the collieries.

Q. Is the land at that point adjacent to either of the other pieces of land you have named in the first and second groups? A. No, sir.

Q. And the next group of Pennsylvania Coal Company mines, is where? A. No more. I have given all the Pennsylvania collieries.

Q. All those mines, when you began their management, were reached by the Erie and Wyoming Railway? A. Yes, sir.

Q. Did any other railway have connection with them at the time when you took their management? A. The No. 14 could ship over the Jersey Central. There was a connection in at No. 14. Barnum could have shipped over the Lehigh Valley.

Q. Any other railway connections excepting the Erie and Wyoming Valley. A. I think that is about all, those two.

Q. The Erie and Wyoming Valley tracks showed that they had been built with reference to these particular mines? A. Yes, sir.

Q. Were those Erie and Wyoming Valley tracks at that time built or situated to serve other mines, too? A. They could serve more mines. They did serve other mines.

Q. That did not belong to the Pennsylvania Coal Company? A. That did not belong to the Pennsylvania Coal Company.

Q. How long, after you became the manager of those mines, before some of the coal began to go over the New York, Susquehanna and Western? A. I do not know.

Q. Some time after? A. Some time after. That is as I recall it.

Q. Do you know whether it was possible to send it over the New York, Susquehanna and Western without putting any rail connections of any kind in to do that, or whether some rail connection had to be put in to do that? A. My recollection is that rail connection had to be put in at Hillside Junction to do that.

Q. And what goes over the New York, Susquehanna and Western does in fact go over that connection at Hillside Junction, does it not? A. Yes, sir.

Q. The Hillside mines, the first group, was located where? A. To the northeast?

Q. Yes. Commence at the northeast? A. They were located at Forest City, above Carbondale, on the Jefferson Division.

Q. What mines were there? A. The Forrest City and the Clifford.

Q. They were on what railway line; what was their main track rail connection? A. They were on the Jefferson Division of the Erie.

Q. What is called the Jefferson Division, of the Erie? A. Yes, sir.

Q. Were they on any other railway line, except that? A. No.

Q. The next group of Hillside mines was where? A. At Mayfield.

Q. About how far from Forest City? A. About nine miles.

Q. Were the acreages of those two groups adjacent to each other. A. They were not.

Q. What mines were at Mayfield of Hillside? A. Erie, Glenwood and Keystone collieries.

Q. They were on what railway? A. They were on the Delaware and Hudson.

Q. That was the road that served them? A. Yes, sir.

Q. The Jefferson did not reach that far? A. Did not reach that far.

Q. The Jefferson stops at Carbondale? A. It does.

Q. So that the coal from that group of Hillside mines had to travel over the Delaware and Hudson how many miles before it reached an Erie branch? A. About three miles.

Q. Where was the next group of Hillside mines, if any? A. Down near Moosic.

Q. That is about how far away from the first group at Forest City? A. About thirty miles.

Q. What mines were there? A. The Consolidated.

Q. Was the land on which the Consolidated is, adjacent to any land of any of the Hillside groups? A. No, sir.

Q. Was it adjacent to the Pennsylvania Coal Company land? A. No.

Q. What railroad was that Consolidated on? A. That was on the Erie and Wyoming Valley.

Q. So that coal moved out over that line? A. Yes, sir.

Q. Down to 1898, did it have any connection with the New York, Susquehanna and Western, or don't you know? A. It did not.

Q. After the Erie became a stockholder in the New York, Susquehanna and Western, in 1898, do you know whether any connection was made in any way between the New York, Susquehanna and Western and the Consolidated mines of the Hillside? A. There was.

Q. About when? A. I could not tell you.

Q. Some time after? A. It was some time ago that the connection was made.

MR. MCREYNOLDS:—Would you mind asking him how that connection was made.

JUDGE MOOT:—I will ask him that.

THE WITNESS:—The connection was made with the Susquehanna connecting road, a road connecting the Jermyn properties with the Wilkes-Barre and Eastern at Hillside Junction, using the Consolidated branch to put their cars into the Consolidated breaker. The Susquehanna connecting crosses the Consolidated branch, and they put in what we would call an interchange at that point.

By JUDGE MOOT:

Q. There never had been an interchange before? A. Not to my knowledge. I am sure of that.

Q. So that the railway connection with the Susquehanna consisted in putting that interchange in so that the Susquehanna could serve that breaker? A. Yes, sir.

Q. And that breaker has been served since by which, the New York, Susquehanna and Western, or the Erie and Wyoming, or by both? A. By both.

Q. What consideration controls which serves that mine, if you know? Is the consideration where the coal is to go, so far as you know? A. As far as I know, that is the consideration. I was trying to recall whether the New York, Susquehanna and Western did all the work there or not; but I think both companies put cars in. That is my recollection.

Q. You mentioned the Jermyn mines. Were those Jermyn mines ever offered to any of those coal companies in which the Erie is interested? A. They were.

Q. About when? A. Three or four years ago, I think it was.

Q. Do you know which one of the coal companies the Erie is interested in they were offered to? A. I do.

Q. Did you examine them? A. I made an investigation and reported on that property.

Q. At the instance of whom? A. Of the vice-president, Mr. Richardson.

Q. Who has the management of coal properties? A. That is right.

Q. At what price were they offered, do you remember? A. I think it was $2,100,000; it may be two millions.

Q. Did you report in favor of the purchase, or against it? A. I thought the price was too high.

Q. And so reported? A. And so reported.

Q. Did negotiations follow? A. Yes, sir.

Q. Did they reach any agreement as to price? A. They did. They reached an agreement as to price.

Q. What was that price? A. As I recall it, $1,800,000.

Q. Did the coal company of the Erie take the mines then? A. It did not.

Q. What was the trouble? A. I was told that there was a question as to terms of payment. I did not carry on the negotiations.

Q. Whether that was the separating cause that prevented the Erie Coal Company, whichever one it was, from acquiring the Jermyn properties, you do not know? A. I do not know.

Q. You mentioned the fact yesterday that some of these mines had given out, the Keystone, the Glenwood, the Clifford and the Erie, if I remember correctly. A. I gave a short term of life to the Erie.

Q. The others had given out? A. No, sir. The Keystone had given out. The Clifford breaker we had abandoned, because of its rotting down, that is giving away. We did not want to repair it. The Glenwood we expect any day to shut down. The balance of the coal at Clifford will go to the Forest City breaker, and the balance of the coal at Glenwood will go to Erie breaker.

Q. There is not much to go? A. No, sir.

Q. The Glenwood breaker was built about how long ago? A. That was built in 1886.

Q. It is an old-fashioned breaker of the cheaper type? A. It is twenty-two years old. It is an old-fashioned breaker.

Q. The development there cost about how much? A. As I recall it, $275,000.

Q. For a capacity of how much? A. We had a capacity to mine of about one thousand tons a day.

Q. What you call a small operation? A. A small operation.

Q. That breaker and machinery, and so on, have been renewed from time to time, to keep them good? A. Yes, sir.

Q. When you abandon that Glenwood, how much salvage will you get out of that $275,000, about? A. I would say about fifteen per cent. of the value. That is very difficult to get at, because we may utilize the shafts for second openings, or something of that kind. I would say fifteen per cent.

Q. It depends on how much you can utilize? A. Yes, sir.

Q. Is fifteen per cent. a maximum salvage, or a minimum salvage? A. I would say it would be a fair sample.

Q. A fair sample? A. Yes, sir.

Cross examination.

By MR. MCREYNOLDS:

Q. Since you have been connected with anthracite coal mining operations, has there been a gradual and continual improvement in the methods of mining, tending toward economy? A. There has been more improvement in the outside than in the inside. We are rather slow in the matter of improving the methods in the mining of the coal itself. We have made a great many improvements in the matter of haulage, and in the appliances that we use, but in the mine itself, we still blast and use the

drill with man power, and have the old-fashioned room and pillar methods. We are trying to introduce a form of panel system.

Q. With this explanation, answer my general question, which was, since you have been connected with anthracite coal mining operations, has there been a gradual and continual improvement in the methods of mining, tending toward economy? A. I would say yes, sir.

Q. Has the introduction of new and improved machinery, in connection with anthracite coal mining operations, tended to reduce the cost of the production? A. Yes, sir.

Q. State whether or not since you have been connected with anthracite coal mining operations, certain outpourings of the mine that were formerly waste, have become merchantable commodities? A. They have become marketable commodities.

Q. Do the mines now receive for these commodities a return, which they formerly did not receive? A. Yes, sir.

Q. In a general way, without descending into particulars, tell us what those things which are now saved are? A. Beginning at what period?

Q. Say, 1885. A. Since 1885 we have won Buckwheat coal, Rice coal and Barley coal.

Q. Prior to 1885, Buckwheat, Rice and Barley coal were by-products, without value to the mine? A. They were put upon the banks.

Q. Since that time they have become merchantable commodities, for which you receive, in the aggregate, in the Wyoming region, many millions of dollars every year? A. They have become a marketable product and are sent to market.

Q. And now have an established price in the market? A. They have an established price in the market.

Q. When did the Buckwheat, Rice and Barley begin to be merchantable commodities? A. We began to make Buckwheat in 1885, at our operations, and I think it was in 1897 that we began to make Rice, and a year or two later we made Barley.

Q. Since 1898 have the quantities of Rice, Buckwheat and Barley sold in the markets rapidly increased? A. It has increased.

Q. You have spoken in your examination, of culm banks. What do you mean by that? A. A culm bank is a bank formed by the coal that could not be marketed in times past, with the mine refuse that was brought out from the mine.

Q. And into that culm bank, prior to 1895, did the Rice and Barley coal all go into that culm bank? A. Practically all.

Q. Since that time, state whether or not throughout the Lackawanna region a vast deal of that Rice and Buckwheat coal has been redeemed from these culm banks and put upon the market? A. It has.

Q. If you know, state whether Pea coal is now used to a very considerable extent for domestic purposes? A. I do not know that.

Q. You were asked what percentage of the total output of the mines, speaking generally, was Chestnut, and above. What per cent. is Pea coal and above? A. I could not tell you that.

Q. What is the percentage of the Pea coal output as compared with the whole? A. I cannot tell you.

Q. In order to make it clear in the record, will you briefly state what is meant in coal operations, by a colliery, by a breaker, and by a washery. A. A colliery is the entire operation, including the breaker, every necessary building—the mine as a whole. In other words, it is the whole plant. The breaker is the building in which the coal is broken down and prepared. The washery is the place where we, in the Lackawanna region, take the sizes of pea and below, generally speaking, and wash them for the market. In some places we do not take up the coal, but we are gradually taking all of our pea coal to the washery to be prepared. There are two classes of washeries, one that is an annex to the breaker, on which we run the fresh-mined small sizes. Then there is another one that washes the banks. It may be entirely separated from the breaker.

Q. Then the latter kind has been put up to redeem from the old culm banks the smaller sizes which heretofore were thrown there? A. Yes, sir.

Q. There are three general regions in the anthracite coal country. Can you tell us in which one of those regions the mining of coal is the most expensive, and in which the least expensive? A. I do not know this from actual practice, but I have the impression that the Schuylkill is the most expensive.

JUDGE MOOT:—He also wants to know which would be the least expensive.

A. The least would be the Lackawanna.

By MR. MCREYNOLDS:

Q. According to your general knowledge of the anthracite coal mining, which region will probably be first exhausted as things now run? A. The Lackawanna region. One moment, please—the Lehigh may be the first. But I am not positive of that, because I am not as well acquainted with that as with the Lackawanna.

Q. It seems reasonably sure that the Schuylkill will be the last? A. Yes, sir.

Q. You were asked with reference to certain figures which were furnished from month to month by Mr. Neall, of Washington, the party designated under the findings of the Strike Commission. You also have spoken of certain figures received from Ruley. Is there any difference in those figures; if so, what is it? A. The Ruley figures referred to were the average prices received for coal at tidewater, that is for white ash coal received at tidewater.

Q. Mr. Neall's figures are based upon the Ruley averages, and taking those as the basis he reports to the operators the percentage, if any, which should be added to the miners' wages, under the operations of the sliding scale? A. That is right.

Q. Where is the principal market for the bituminous coal mined by the Blossburg Coal Company? A. The Erie Railroad for supply purposes.

Q. Do any of those coals come to tidewater at New York? A. Not that I know.

Q. Is there a rate quoted by the Erie Railroad from Blossburg to New York, at all? A. I do not know.

Q. Where are the anthracite coals mined by the Northwestern Mining Exchange Company sold? A. That is bituminous coal.

Q. I mean bituminous. A. That is mostly used for railroad supply.

Q. Does any of that coal come to tidewater at New York? A. I do not believe it does.

Q. Are both of those companies controlled by the Erie Railroad, according to your understanding? A. They are.

Q. When was the control of the Pennsylvania Coal Company acquired by the Erie Railroad? A. Some time before I became general manager. I do not know the exact date. I became general manager in March, 1901.

Q. Prior to that time, how did the coals of the Pennsylvania Coal Company move from the mines to the harbor at New York? A. I did not watch the way their coal went to market, but I was under the impression it went by way of the Erie and Wyoming Valley Road.

Q. The majority of the stock of the Erie and Wyoming Valley Railroad Company was owned by the Pennsylvania Coal Company, was it not? A. I do not know that.

Q. You have stated that one group of collieries controlled by the Hillside Coal Company are situated on the tracks of the D. and H. Railroad Company? A. Yes, sir.

Q. The coals from those collieries go to market first passing over the tracks of the D. and H. Company at Carbondale? A. Yes, sir.

Q. There it is taken up by the Erie? A. By the Erie.

Q. Do you know what is paid for transporting those coals to the D. and H. over its rails? A. I do not know.

Q. Are any collieries, except those owned by the Pennsylvania Coal Company, reached by the Erie and Wyoming Valley Railroad Company? A. The Butler colliery. The Spencer, by a branch which the Spencer themselves built, as I remember it. Katydid and the Nay Aug. I think that is all.

Q. How long have these collieries been reached by the rails of, and been served by the Erie and Wyoming Valley Railroad Company? A. The Butler since 1901; the Katydid, it must be twenty years; I will say fifteen, to be on the safe side. The Nay Aug, I would say fourteen years. The Spencer, I do not know how long.

Q. Ten or twelve years? A. I would not want to say. I do not know whether those rails were put in since 1901 or not.

Re-direct examination.

By JUDGE MOOT:

Q. Have these increases in wages and increases in the cost of material added to the increase in the expense of producing coal? A. Yes, sir, they have.

Q. Have these exhaustions of the larger veins, and the working of the smaller veins, or thinner veins, added to the expense of producing coal? A. Yes, sir.

Q. You say mine economies mainly on the outside have tended to reduce or minimize this increase in the expense of producing and preparing coal for market? A. They have tended to.

Q. Have those economies on the one side increased fast enough to offset the increase in the cost of producing on the other? A. No, sir.

Q. Has there been any perceptible addition to the cost of producing coal because of decreasing large veins, increase in labor cost, and increase in material cost, since the Strike Commission made its award? A. Yes, sir.

Q. Is that increase in the cost of product still going on? A. Yes, sir.

Q. Faster than the economies introduced on the other side tend to offset or neutralize the increase? A. Yes, sir.

Q. In the Strike Commission report they say, speaking of all the regions, "The total cost of all sizes for the mining and preparing of the coal at the mine, to some of the large companies, is about two dollars per ton, while a considerable portion of the product is sold and delivered in New York harbor for less than that amount, so that the prices realized

at the mine for about forty per cent. of the product average not over one dollar per ton? This loss on the smaller sizes, if the business is to be profitable, must be recovered from the domestic sizes, which are about sixty per cent. of the product, so that in speaking of the cost, which is based on the total of all sizes, one must bear in mind the above facts in comparing that cost with the prices obtained by the operators for the domestic sizes." Now, when you spoke of sixty and forty per cent. generally, was it the sixty and forty per cent. there mentioned in the strike report? A. That was what I had in mind at the time.

Q. Since that time, you say the cost has still further increased? A. It has; yes, sir.

Q. I assume you are not an expert on prices? A. Market prices?

Q. Market prices. A. No, sir; I have nothing to do with that.

Q. You simply know whether mining is getting more expensive or not, and all that kind of thing? A. That is all I know.

Q. Knowing that, do you know enough about it so that you can tell us whether a mine could be run profitably just simply to produce Pea and sizes below Pea? A. From the information that I have, such as I have gathered, there is no profit on Pea or smaller.

Q. Then, according to your information, if there were no prepared sizes produced, none of these mines could be profitably worked at the present prices? A. That is correct.

Q. And whether they are profitable or not depends, to a certain extent, on the percentage of prepared sizes they do produce? A. Yes, sir.

Q. You spoke of the increase in steam sizes in production, because of the fact that the larger veins were decreasing. I call your attention to some figures that have been made up, at my request, by the auditors of the Hillside, beginning with the year ending June 30th, 1901, and coming down to the year ending June 30th, 1908, and I call your attention to the fact that that company's percentage of steam sizes for 1901 appears to be thirty and fifty-two

one-hundredths per cent.; 1902, thirty-nine and twelve one-hundredths per cent.; 1903, thirty-eight and four one-hundredths per cent.; 1904, thirty-nine and forty-five one-hundredths; 1905, forty and eight one-hundredths per cent.; 1906, forty-two and eighty-eight one-hundredths per cent.; 1907, forty-three and eight one-hundredths per cent.; 1908, forty-three and two one-hundredths per cent. Having these figures before you, with respect to the mining operations of that company, what would you say, with your observation and recollection, as to whether they give a correct idea of about the extent to which the steam sizes of that particular company, in its mines, were increasing from year to year? Take the mines as a whole. A. They bear out the impression and the knowledge which I have.

Q. They accord with your recollection and knowledge on the subject? A. Yes, sir.

Q. You believe them to be correct, do you? A. I do; yes, sir.

Q. Now, if you take the Pennsylvania Company for the same years, from 1902. They do not seem to have them for 1901. A. That is the fiscal year, and so is this.

Q. From your observation and experience with the mines of the Pennsylvania Coal Company, and in your testimony, I assume that it is only of those mines you have been speaking, when you spoke of the Pennsylvania Company; is that right? A. That is it. I was speaking of the operations of the Pennsylvania Coal Company when I said the Pennsylvania Company.

Q. Would the Pennsylvania Company operations show a smaller percentage of steam sizes than operations generally in the Wyoming region, or the other regions, on account of the fact that its veins are still better, and its coal is still better for the most part, than those of other companies in that region, so far as your knowledge and observation goes? A. I could not say about that.

Q. You could not say about the other companies? A. About the other companies.

Q. Would it show up better in this respect than the Hillside? A. It would.

Q. For what reasons, generally? A. Because the veins worked are larger. The character of the coal is different, and the breakers, as a whole, are more modern, and they bring more of the prepared sizes to be won.

Q. I observe that the figures made up by the auditors of the Pennsylvania Company for the year ending June 30th, 1902, show steam sizes twenty-nine and eighty-three one-hundredths per cent.; 1903, twenty-six and fifty-two one-hundredths; 1904, twenty-seven and sixty-six one-hundredths; 1905, thirty and eighty-two one hundredths; 1906, thirty-four and seventeen one-hundredths; 1907, thirty-three and seventy-four one-hundredths; 1908, thirty-three and eighty-one one-hundredths. Having those figures before you, to refresh your recollection on the percentage of steam sizes produced by the mines of the Pennsylvania Coal Company as a whole, what do you say as to whether they are correct? A. They bear out my own knowledge of the situation.

Q. And are correct, according to the best of your knowledge on the subject? A. Yes, sir.

Q. Do they fairly indicate again, the way in which the steam sizes are being produced, even with good machinery and economies, and a good supply of coal to work with, in the case of a company like the Pennsylvania as mining is continued? A. Yes, sir.

Q. Do you know whether these Ruley averages on which Mr. Neill tells you what percentages to add to the miners' wages, whether those Ruley averages take in all of these sizes, or whether they simply take in sizes above Pea? A. I do not remember.

Q. I will refresh your recollection on that point. In the eighth paragraph of the Award of the Mine Strike Commission they provide, "The wages fixed in the awards shall be the basis of, and the minimum under, the sliding scale, to become effective April 1st, 1903. For each increase of five cents in the average price of White Ash coal of sizes above Pea coal, sold at or near New York, between Perth Amboy and Edgewater, and reported to the Bureau of Anthracite Coal Statistics, above four dollars and fifty cents

per ton f.o.b., the employes shall have an increase of one per cent. in their compensation, which shall continue until a change in the average price of said coal works a reduction or an increase in said additional compensation hereunder; but the rate of compensation shall in no case be less than that fixed in the award. That is, when the price of said coal reaches four dollars and fifty-five cents per ton, the compensation will be increased one per cent., to continue until the price falls below four dollars and fifty-five cents per ton, when the one per cent. increase will cease, or until the price reaches four dollars and sixty cents per ton, when an additional one per cent. will be added, and so on." That is the part of the Strike Commission Award, that you call the sliding scale? A. Yes, sir, we follow that.

Q. That is the part you follow on these figures from Mr. Neill? A. In making up our pay rolls we have that in mind, and we get the figures from Mr. Neill.

Q. You have been getting those figures from Mr. Neill, under that, ever since that award was made in March, 1903? A. Yes, sir.

Q. And have been paying the men these wages, as you testified the other day, on that basis? A. Yes, sir.

Q. This award says, "These average prices shall be computed monthly, by an accountant or commissioner, named by one of the Circuit Judges of the Third Judicial Circuit of the United States, and paid by the coal operators, such compensation as the appointing judge may fix, which compensation shall be distributed among the operators in proportion to the tonnage of each mine. In order that the basis may be laid for the successful working of the sliding scale provided herein, it is also adjudged and awarded: that all coal operating companies file at once with the United States Commissioner of Labor, a certified statement of the rates of compensation paid in each occupation known in their companies as they existed April 1st, 1902." Under this basis of the award, did your companies file a statement of the wages paid, with Mr. Neill as United States Commissioner of Labor? A. I do not know.

Q. You do not know about that? A. No, sir.

Q. That would not be your part? A. No, sir.

Q. Mr. Neill is the Commissioner of Labor who furnished you with these figures that you used the other day? A. Yes, sir.

Q. I observe, in answering Mr. McReynolds, that you make a distinction apparently between merchantable and marketable coal when you talk of steam sizes. Is that simply an observation that has not anything to it, or do you make that distinction? A. I do.

Q. What is your distinction? A. Merchantable coal is coal that can be marketed at a profit. Marketable coal is coal which can be burned and used.

Q. That is the sense in which you used those two words in your answers? A. Yes, sir.

Re-cross examination.

By MR. MCREYNOLDS:

Q. Has the Pennsylvania Coal Company any of the sixty-five per cent. contracts for the purchase of coal of other producers? A. It has one with, I think it is, the Elk Hill Coal and Iron Company, whereby they can buy the coal taken from the lands leased to the Elk Hill Coal and Iron Company by the Pennsylvania Company.

Q. Do coals purchased under that contract come to tidewater? A. I think it does.

Q. Do you know the net result, to the Pennsylvania Company, of the coal which it takes under that contract, and sends to tidewater for sale? A. I do not.

Q. Do you know the net result to the Hillside Coal Company of this arrangement for the purchase of Delaware and Hudson coal? A. I do not.

Q. Do you not know that the Hillside Coal Company loses money upon the coals that it purchases from the Delaware and Hudson Coal Company and sends to tidewater? A. I do not know.

Q. You have never investigated that matter? A. I never investigated it.

Q. Is not that within your province? A. No, sir.

Q. As general manager of that mine? A. No, sir.

Q. Is it not your business to produce profits? A. To do what?

Q. To produce profits out of the operations of the company? A. It is my business to put the coal upon board cars as cheaply as I can.

Q. And with the selling of it you have nothing to do? A. I have nothing to do with the selling.

Q. Has the Hillside Coal Company ever paid a dividend since you have been connected with it? A. I do not know.

By JUDGE MOOT:

Q. You say some of this sixty-five per cent. coal comes to tide, you think. Does not some of it go to other points also? A. We ship the coal where the sales agents tell us to ship it.

Q. Whether it is sixty-five per cent. coal, or whether it is coal from a given mine? A. Yes, sir.

Q. The sixty-five per cent. coal does not all go to tide, any more than any other coal does? A. We make no distinction. We ship it wherever they tell us to ship it.

Q. But you have not anything to do, as you testified before, with marketing the coal you produce or ship on orders from the agents? A. No, sir.

Q. I suppose about all you can do is to attend to these mines? A. Yes, sir.

MARSHALL E. JOHNS, recalled:—

By JUDGE MOOT:

Q. I show you a map purporting to be a map of the Susquehanna and Western, and Wilkes-Barre and Eastern, and lines operated by those two, or by the Susquehanna and Western alone. This map has been prepared by the Engineering Department and the Legal Department of the Susquehanna and Western, under your eye, and with your assistance, and generally speaking under your supervision, for the purpose of locating all these various lines correctly, in different colors as the map shows. A. Yes, sir, that is correct.

Q. Does that map, according to your information, correctly give, in location and distances, these lines and branches indicated on there in different and separate colors, as you have known them to be, and as you do know them to be, from being over the ground yourself as superintendent of this railroad, or otherwise, in all these years? A. In my judgment they are correct.

Q. Are there any more tracks of the Susquehanna, or any of its branch lines, operated by it than are shown on this map, in the coal regions, so far as you know? A. Yes, there are a few sidings at Spencer, Murray, and Dolph.

Q. Those sidings are not directly connected with this system, are they? A. No, sir; they are off and away from that.

Q. Those sidings, and those separate breakers, consist of about how many feet of track built by which, the Wilkes-Barre and Eastern? A. They were built by the New York, Susquehanna and Western Railroad.

Q. They consist of about how many feet of track in each instance, in your best judgment? A. I should say a mile and a half of track.

Q. A mile and a half of tracks, consisting of how much at each one of these breakers, as near as you can tell? A. About half a mile to each breaker.

Q. Those tracks at those breakers were built to serve them, I assume. Is that correct? A. They were built to serve those breakers at the time the Susquehanna Railroad entered the coal fields.

Q. Those tracks were used to supply cars, and handle the cars for the breakers, and then you paid, from those breakers, over some other line, a trackage, did you? A. That is correct.

Q. To get back to your own lines? A. No, sir, the output of those breakers was given to another railroad, to reach our lines at some other point.

Q. You paid another line for haulage or trackage so that those cars could be gotten to your lines? A. A haulage or trackage, yes, sir. I could not say which.

The other company was paid to assemble that coal and take that from those mines, and deliver it to the Susquehanna.

Q. I have here also a written statement, charters and lines of the New York, Susquehanna and Western Railroad Company, and the branches, and the Wilkes-Barre and Eastern Railroad Company. This written statement covers these lines indicated on this map before you? A. Yes, sir.

Q. That statement was prepared by Mr. Andrews, of the Legal Department, and yourself under my supervision, to correctly show and determine what the charters were, and all that, under which these lines that this map shows were built, and are operated? A. That is correct.

Q. According to the best of your knowledge and information and recollection, is that written statement also a correct statement in that respect? A. As far as I know. That information was secured from the official series annual session law of New Jersey and from the certified copies of Articles of Association filed in the office of the secretaries of the States of New York and New Jersey, and the Secretary of the Commonwealth of Pennsylvania.

Q. It has been worked over several times to get it as correct as we could? A. Yes, sir. I have gone over it very thoroughly.

(Map marked "Defendant's Exhibit No. 4.")

(Statement marked "Defendant's Exhibit No. 5.")

Q. I overlooked one question yesterday, when you were on the stand, about Paterson. You spoke about the fact that there certainly was some competition between the Erie and the Susquehanna at Paterson. After the Erie became the principal stockholder in the New York, Susquehanna and Western was there any change in that respect as to competition between the two railways in Paterson, for business? A. No, sir, it is just as much a competitive place to-day as it was then.

Q. Under you, the New York, Susquehanna and West-

ern gets all the business it can? A. Everything it can, yes, sir. Every endeavor made to have it do so.

Q. Has there ever been, so far as you know, any orders one way or the other, any attempt one way or the other, from any of the superior officers of the Erie, or the New York, Susquehanna and Western, to prevent that competition? A. Never.

Q. I infer, from what you said the other day, that that competition took the form of accommodations. A. Accommodations, and location, more than anything.

Q. This time table that you produce here, dated "December, 1908, issue. Susquehanna Route, New York, Susquehanna and Western and Wilkes-Barre and Eastern Railroads," is your latest map of the New York, Susquehanna and Western and the Wilkes-Barre and Eastern? A. Yes, sir.

Q. Such as you issue with all your time tables? A. Yes, sir, and that is the latest time table.

Q. And that is the latest time table also? A. Yes, sir, now in effect.

JUDGE MOOT:—I offer in evidence, the map.

(Map marked "Defendant's Exhibit No. 6.")

Cross examination.

By MR. MCREYNOLDS:

Q. On this map, Defendant's Exhibit No. 4, there is what appears to be about five miles of railroad reaching Winton on the north, and Priceville on the west. Is that the road referred to in the description in Defendant's Exhibit No. 5 as the Priceville and Winton Railroad? A. Yes, sir.

Q. When was that road constructed, and by whom? A. I have no record here of when it was constructed, but, from my memory, it was constructed previous to the time that the coal was transported over the Susquehanna Railroad for the first time. I understand it was built to reach certain collieries.

Q. Who built it? A. I believe it was built by the New York, Susquehanna and Western Railroad.

Q. For what purpose? A. To reach certain collieries, and take the coal from those collieries.

Q. Was it constructed prior to —— A. Prior to 1882, or in the early part of 1882.

Q. What good did that little piece of road do the New York and Susquehanna Road at that time? A. It is connected with the D. L. & W. Road at Mount Jessup breaker. The D. L. & W. Railroad ran over it to take this coal and bring it to Gravel Place.

Q. And at Gravel Place placed it on the main line operated by the New York, Susquehanna and Western? A. Yes, sir.

Q. Was the road so constructed for the purpose of gathering coals in that vicinity and enabling the New York, Susquehanna and Western to get control of the transportation of such coals? A. That is the way I understand it.

Q. When was the Susquehanna Connecting Railroad constructed from Paddy's Land up to Minooka? A. It was constructed some time in 1897.

Q. It was finished before the end of 1897? A. The first trains were operated over it some time in October, 1897.

Q. What is the length of that road? A. It is about four miles from Paddy's Land to Hillside Junction, and about a mile from there to Jermyn Junction, now called Moosic, and about a mile and a half over to Jermyn No. 1. It is about two miles from Jermyn Junction to Minooka.

Q. Making the whole road from Paddy's Land to Minooka about how much? A. About nine miles.

Q. Why was that road constructed? A. It was constructed in order that the Susquehanna and Western could reach certain lines with their own power.

Q. And the purpose of reaching the mines was to get the coal, in order to transport it over the lines of the New York, Susquehanna and Western? A. And save the freight they paid the other railroads to deliver it where it was formerly delivered at Yatesville and Jenkins Junction.

Q. Why did the road stop at Minooka, instead of being extended up to a point where it would join the Priceville and Winton Road? A. That I cannot say, unless it was a very difficult operation to construct it up through that country. I do not see how they could have constructed it up through that valley.

Q. In October, 1897, at Hillside Junction, the point where this Susquehanna Connecting Railroad crosses the Erie and Wyoming Valley Railroad, a connection was put in between the two, was it? A. Yes, sir.

Re-direct examination.

By JUDGE MOOT:

Q. Was that put in in October, 1897, between the Erie and the Wyoming Valley? A. The question was not asked as to the date.

Q. Yes, it was. He put it right at you, the date. A. That I could not say. I would have to look at my records for that. There was a connection put in there after the railroad was built, but I cannot say exactly.

Q. Was not that connection at that point put in for the first time after the Erie Railroad Company, as you understood it, had purchased a majority of the capital stock of the Pennsylvania Coal Company, which owned the majority of the capital stock of the Erie and Wyoming Valley Railroad Company? A. No, sir, that connection was put in there for the simple purpose of allowing the N. Y. & S. engines to go over the road between Brownville Branch and ——

By MR. MCREYNOLDS:

Q. Brownville Branch of what road? A. Of the Erie and Wyoming Valley Railroad, which reached the Brookside washery operated by M. F. Dolphin.

By JUDGE MOOT:

Q. Without looking up the record you think that was put in about when? A. As I remember it I think very shortly, if not right away, after we got in there, in order to take the output from this territory.

By MR. MCREYNOLDS:

Q. You mean by we, the New York, Susquehanna and Western Railroad? A. Yes, sir.

By JUDGE MOOT:

Q. After that was put in, after the Susquehanna Connecting Branch was built, was there any use made of that abandoned branch of the Erie and Wyoming except to take out this coal from this Brookside washery? A. That is all it was used for. The Consolidated mine was located on this branch of the Erie not being operated. I understood it had not been operated for five years.

Q. The mine had not? A. Yes, sir, the Consolidated.

Q. When would you say that that branch was first used for anything except the Brookside washery, if ever? Was it ever used for anything else? A. That I could not say. That was previous to my going into the territory.

Q. You say they put in a track to use that for the Brookside washery. Did they begin to use it for something else afterwards? A. They did, later on.

Q. For what? A. To take the output of the Consolidated mine.

Q. You think they began to take the output of the Consolidated mine over that about when? A. About 1900 or 1901.

Q. You cannot say which? A. If I had my records, I could tell you.

Q. Have you them here? A. I have not got them here. I had this record here the last time.

Q. Can you tell us, without stopping to look for the record now, whether the Consolidated coal was taken over that connection or branch at all until after the Erie had become the principal stockholder in the Pennsylvania Coal Company and the Erie and Wyoming Valley Railway Company? A. To the best of my knowledge the Consolidated coal was sent over the Susquehanna Railroad after the Erie Railroad secured control.

Q. Of the Erie and Wyoming Valley? A. Yes, sir.

Q. And not before? A. No, sir.

Q. According to the best of your recollection? A. That is to the best of my recollection.

Q. Counsel asked you about the Susquehanna getting up to a point where it would connect with the Winton Branch. That would have taken it through the city of Scranton? A. Yes, sir.

Q. A city of a good many people? A. Yes, sir.

Q. While you are not an engineer, you recognize the fact up in that country that it would have been difficult? A. It would have been an impossibility, to my way of thinking, to get through there.

By MR. MCREYNOLDS:

Q. Is that crossing between the Susquehanna Connecting line and the Erie and Wyoming Valley at grade? A. Yes, sir.

At 12.50 a recess was taken until 2.15 P. M.

2.15 P. M.

Present—The Examiner.

Counsel present—Messrs. McReynolds, Todd and Moot.

JUDGE MOOT:—An important witness is ill, and statistical matter must be prepared. I had expected to use all of to-day and to-morrow, but I am compelled to adjourn a day and a half earlier than I had planned, on that account. At the request of counsel in Pennsylvania, I am adjourning to the Bellevue, on Wednesday next at 10.30 A. M.

MR. MCREYNOLDS:—In order that the situation may be exactly understood, and appear on the record, counsel for the Government wish to state that they are ready to proceed with the taking of evidence from day to day, and, without meaning in any way to reflect upon counsel who has just requested the adjournment, they do not assent to it, and renew their insistence that some of the

defendants shall continuously proceed with their evidence. There are many other defendants besides the ones represented by Mr. Moot, for whom counsel have appeared, and we think they should be ready to proceed with their evidence.

The Government's counsel hold themselves ready to proceed with the taking of evidence at any day between now and the date to which the adjournment was taken, upon telegraphic notice or otherwise.

Adjourned until Wednesday, April 21st, 1909, at 10.30 A. M., to meet at the Bellevue-Stratford Hotel, Philadelphia, Pa.

Hearing at Room 324 Post Office Building, Philadelphia, Pa., April 21st, 1909, 10.30 A. M.

Present:—The Examiner.

Counsel present:—Messrs. McReynolds, Campbell, Moot and Warren.

TESTIMONY ON BEHALF OF THE TEMPLE IRON COMPANY AND OTHER DEFENDANTS.

Mr. Warren, on behalf of the Temple Iron Company, offers in evidence, extract in tabulated form from the annual reports of the Secretary of Internal Affairs of Pennsylvania, Part 3 Industrial Statistics, under the head of Anthracite Coal, for certain years, namely, 1902, 1903, 1904, 1905, 1906 and 1907, the annual report covering the year 1908 not yet being published by the Department, and asks that they be identified as Temple Iron Company Exhibits Nos. 1, 2, 3, 4, 5 and 6, subject to the right of counsel for the Government to suggest any mistakes, if any are discovered, in the figures taken from these reports, by reference to the official documents from which they are extracted.

(Papers marked 1, 2, 3, 4, 5 and 6.)

HENRY W. KINGSBURY, having been duly sworn, was examined as follows:—

By MR. WARREN:

Q. You reside where? A. Scranton, Pa.

Q. Were you the secretary of a meeting of certain individual operators held at the office of T. H. Watkins, Scranton, Pa., on Friday, October 15th, 1900, which had to consider certain demands on their part for an increase in the prices they were to receive for coal sold to the Railway Coal Company? A. I was.

Q. Did you keep minutes of the proceedings? A. I did.

Q. Have you the minutes with you? A. Yes, sir.

Q. Do they correctly record the proceedings of that meeting? A. Yes, sir, they do.

Q. Did you make a list of the companies or individuals who were in attendance at that meeting? A. They are in the minutes.

Q. In my copy, however, which I assume is a correct copy, the list is at the end, not in the minutes. A. I will have to glance at that. I supposed I signed them at the end and I meant them, I think, to show who were present, and I think the minutes disclose that fact.

Q. You are right on that; but they do not indicate what companies these gentlemen were associated with. A. No.

Q. The minutes indicate the names of individuals present. At the end of the minutes there is a list of certain companies, which I have assumed were the companies represented at the meeting by the individuals. A. The particular list of companies by name, that you call my attention to, is not attached to these minutes of mine.

MR. WARREN:—I offer in evidence, the minutes signed by the witness as secretary.

(Minutes marked Temple Iron Company, Exhibit No. 7.)

By MR. WARREN:

Q. You knew personally the gentlemen who were present at that meeting, did you not? A. Yes, sir.

Q. Calling your attention to the list, as you incorporated it in your minutes, and starting first with William Connell, with what coal company or companies was he associated on the 5th of October, 1900, the date of this meeting, if you know? A. William Connell & Co.

Q. That was an individual operation? A. Yes, sir.

Q. In Lackawanna County? A. In Lackawanna County.

Q. Thomas Brooks, with what company was he associated, if you know? He was the son of R. G. Brooks, was he not? A. Yes, sir.

Q. R. G. Brooks is the next name on this list. The son and father were there representing who? A. They operated as Brooks & Dale.

Q. What companies did they represent? A. That I do not know.

Q. Don't you recall that they were controlling the Algonquin Coal Company, and the Langcliffe Coal Company? A. Yes, sir.

Q. T. H. Watkins at that time represented the Temple Iron Company. John Kemmerer, who did he represent? A. The Moosic Mountain Coal Company, and the Mt. Jessup Coal Company.

Q. R. J. Matthews, he represented the Austin Coal Company? A. Yes, sir.

Q. M. S. Kemmerer? A. He was with the companies you have named, Moosic Mountain and Mt. Jessup, and one in Schuylkill, M. S. Kemmerer & Co.

Q. J. N. Rice represented what? A. J. N. Rice.

Q. He represented the West End Colliery Company? A. I do not know.

Q. The Blue Ridge and the Riverside Companies? A. Yes, sir.

Q. James McClure represented McClure & Co. Charles Ford represented what company? A. Moosic Mountain Coal Company, and Mt. Jessup Coal Company.

Q. N. E. Rice represented the Blue Ridge and Riverside, did he not? A. Yes, sir.

Q. Thomas H. Dale, you have already said was asso-

ciated with R. G. Brooks representing the Algonquin and Langcliffe? A. Yes, sir.

Q. S. B. Bennett? A. S. B. Bennett, a Pittson company. They sold out to the Erie.

Q. It was not the Butler, was it? A. The Butler Coal Mining Company.

Q. Morgan B. Williams represented what company? A. I do not know.

Q. Don't you know he represented the Kingston Coal Company? A. I cannot say.

Q. I will say that. John Jermyn represented Jermyn & Co.? A. Yes, sir.

Q. J. S. McAnulty was the son-in-law of William Connell, representing William Connell & Co.? A. Yes, sir.

Q. W. L. Connell at that time represented the Green Ridge Coal Company? A. Yes, sir, and the Enterprise Coal Company.

Q. J. L. Cake represented what company? A. Clear Spring Coal Company.

Q. J. J. Jermyn represented, with his father, Jermyn & Co.? A. Yes, sir.

Q. M. B. Fuller represented the collieries controlled by his father, I assume, the Seneca and Old Forge and Newton Coal Mining Company, and the Mt. Pleasant Coal Mining Company? A. Yes, sir.

Q. Thomas H. Jones and James J. Williams represented the Forest Mining Company? A. And the Pierce Coal Company.

Q. W. J. Hand represented the Nayaug Coal Company? A. Yes, sir.

Q. C. E. Bradbury represented the same company? A. Yes, sir.

Q. H. W. Kingsbury, that is yourself, represented the Stevens Coal Company? A. Yes, sir.

Q. William Law represented what company, do you know? A. Robertson & Law.

Q. They were operating the concern at Moosic. What is the name of that? A. They always go under that name, Robertson & Law.

Q. They have a corporation under which they are managing their properties. C. C. Bowman represented what company? A. I think he was in the Butler Coal Company.

Q. K. M. Smith represented what company? A. Alden Coal Company.

Q. Where is the Alden Coal Company? A. At Alden, Pa.

Q. State whether or not all these companies you have named were independent coal companies, so-called? A. Yes, sir.

Q. That is, they were companies, the stocks of which were not owned by the railway companies? A. That is correct.

Q. W. G. Payne & Co. was an independent operation near Kingston at that time? A. Yes, sir.

Q. Do you know who is the manager of that company? A. W. G. Payne at that time was, I believe.

Q. You do not recognize any of the gentlemen who were present at the conference as representing that concern? A. None that you have named, no, sir.

Cross examination.

By MR. MCREYNOLDS:

Q. What is your present employment? A. I am the president and general manager of the Stevens Coal Company of Pittston, Pa.

Q. How long have you been connected with the Stevens Coal Company of Pittston, Pa. A. Since February, 1899.

Q. Is the Stevens Coal Company an independent concern? A. Yes, sir.

Q. Who owns its stock? A. Do you want them by name?

Q. No, sir, just by description. Is it owned by individuals or by some other corporation? A. By individuals, yes, sir.

Q. Meaning separate individuals? A. A number of separate individuals, yes, sir.

Q. What does it do with the output of its mines?

MR. WARREN:—We object to this as not cross examination.

By MR. MCREYNOLDS:

Q. How does the Stevens Coal Company dispose of its coals? A. We sell it to Meeker & Co., of New York.

Q. What is the output of the Stevens Coal Company mines? A. It is about one hundred and fifty thousand tons a year.

Q. Do you sell it to Meeker & Co. on the sixty-five per cent. basis?

MR. WARREN:—That I object to, as an inquiry into the affairs of the company, a stranger to this proceeding, and further that it is not cross examination.

A. It is a private contract between Meeker & Co. and the Stevens Coal Company, and the sixty-five per cent. contract is the basis of our settlement.

By MR. MCREYNOLDS:

Q. Coming now to this, Exhibit No. 7—you are the secretary of this meeting of individual operators held on October 5th, 1900? A. Yes, sir.

Q. "A meeting of the individual operators" it says. What was the meaning of that term "individual operators" as employed at that time? A. It was a conference of individual operators.

Q. What do you mean by individual operators, is what I am trying to get at. A. Those who mine their coal and ship it.

Q. Did not all operations mine their coal and ship it? A. That is true.

Q. I want to know what you mean in this record here by "individual operators." A. Those who owned their own property.

Q. Do you mean to distinguish by individual operators those which were not controlled by some one of the transportation companies? A. Yes, sir; I do.

Q. And that is the meaning in this exhibit? A. Yes, sir.

Q. Was there an association of individual operators at

the time of these minutes, October 5th, 1900? A. There may have been an association, but I was not a member of it, and this was not a meeting of that association

Q. Explain to us the meaning of this resolution recorded as having been passed on the first day of October, 1900. It says, a committee was appointed to confer with the presidents of the transportation companies and endeavor to learn if there is to be a reduction in rates of freight to cover the advance in wages that they have offered to their employes. Had the presidents of the transportation companies at that time offered an advance in wages to their employes? A. Yes, sir; there was a strike on about that time, and as I remember it, a certain notice of advance in wages was about to be posted, and the individual operators met together and formulated this minute which in effect was to appoint a committee to investigate and see if any proposition would be made to take care of or reimburse them for the amount of the increased wages.

Q. What did the individual operators have to do with the advanced wages offered by the transportation companies? A. That I cannot answer.

Q. Were you present at this meeting on October 1st, 1900? A. I was present, but I was not the secretary of that particular meeting.

Q. Reading further from that motion passed October 1st, 1900, "also that 65 per cent. and 50 per cent. and 85 per cent. maximum rate on smaller sizes be the lowest base upon which the prices to be paid for coal should be calculated." What does that mean? A. I believe it means at this distance—my recollection must govern me—that it was an average to obtain a better price for our coal than we were then receiving.

Q. Obtain a better price from whom? A. A better contract for selling coal.

Q. From whom? A. The people we sold to.

Q. Who were they? A. In my case it was the Lehigh Valley at that time.

Q. You mean the Lehigh Valley Railroad Company? A. The Lehigh Valley Coal Company.

Q. The Lehigh Valley Coal Company was owned by the Lehigh Valley Railroad Company? A. It was so stated. I presume that is correct.

Q. Were all these individual operators at that time selling to these railroad companies, or the coal companies owned by the railroad companies? A. I think that most of them were. There may have been some in that list who were selling their coal on separate or private contracts.

Q. The sixty-five per cent. and fifty per cent. and eighty-five per cent. was based upon what, prices at tidewater? A. Yes, sir.

Q. In other words, the movement by these independent operators was to do what they could to get a better price from the transportation companies than they had been receiving up to that time. A. That minute was not prepared by me. I was there and heard it read. The date will disclose that I was just in that business, had just come in to the business in 1899. The business down there, I went to learn what I could. I did not go into the coal business because of my previous knowledge of it, but because of my relationship with the people who owned the Stevens Coal Company, who asked me to do it, and I am not prepared to answer that question.

Q. I read further from this exhibit, "It was the sense of the meeting that if the railroad presidents agree to the reduction in freight rates and advance the prices of coal, the operators will post notice of advance in wages." What does that mean when it says if the presidents agree to the reduction in freight rates? A. I must make the same answer to that that I have made to your previous question. I do not know.

Q. You mean you cannot explain what that means? A. I cannot explain.

Q. What does it mean when it says that if the presidents agree? A. What I am trying to say is that I am willing to give you any information I can, but I cannot testify to things I do not know about. I did not formulate that.

Q. What does this exhibit mean when it recites in effect,

"the sense of the meeting that if the railroad presidents agree to the reduction in freight rates *and advance the prices of coal.*" What does it mean when it says if the railroad presidents agree to advance the prices of coal? What is your understanding of that? A. My understanding would be—my personal view would be that it would be to the advantage of the individual operators that they would get more for their coal at the breaker than they had been receiving.

Q. What does it mean about the presidents advance in the prices of coal? How could the presidents advance the prices of coal? A. That I cannot answer. I do not know.

Q. But they could do it, as you understood, at that time?

JUDGE MOOT:—I object to that question as entirely improper.

A. I could not answer such a question as that. Whether they can or cannot, I cannot answer.

By MR. MCREYNOLDS:

Q. Do you know what the freight rates of anthracite coal from the Lackawanna region to tidewater were in 1900? A. No, sir.

Q. Do you know whether there has been any change in those rates since that time? A. No, sir.

Q. Don't you know that as a matter of fact the freight paid by individual operators at that time was a certain percentage of the average price of coals at tidewater during the month?

MR. WARREN:—Objected to as not cross examination.

A. I am afraid I will have to change my answer on your date. It escaped my mind. Certainly, at least my understanding was, the difference between the so-called sixty per cent. contracts and sixty-five per cent. contracts would make the difference in freight rates. I did not mean to evade that. In that particular I realize it was a difference in rates, but as far as special rates I know nothing because our coal has been sold at the breaker. I have had nothing to do with freight rates and I am not a competent witness on freight rates.

By MR. MCREYNOLDS:

Q. You mean so far as published freight rates are concerned? A. Yes, sir.

Q. When did this sixty-five per cent. basis go into effect? A. I think it was in 1901.

Q. Prior to that time, what was the basis? A. Sixty per cent.

Q. Why the change? A. I wish you would help me with your question.

Q. I mean why was the change from the sixty per cent. rate to the sixty-five per cent. A. Why the change?

Q. From the sixty per cent. basis to the sixty-five per cent. basis. Why was that change made? A. In my estimate the change was made because the individual operators, the pressure brought was so great, that the cost of mining had increased so, and all those things were recognized, and a different contract became desirable and necessary, in the prosecution of the coal industry.

Q. And that contract was put into effect generally throughout the region by all the transportation companies at the same time?

MR. WARREN:—Objected to. The witness has not shown what he knows about the region generally, or had any familiarity with it, and knowledge of it then. It is not cross examination.

By MR. MCREYNOLDS:

Q. Was that a fact? A. Speaking of my general knowledge of it?

Q. Of course. A. I think that the so-called sixty-five per cent. contract was the contract entered into by all those individual operators who shipped or sold their coal to the transportation or to the large coal carrying companies.

Q. How long have you been interested in coal mining up in the Lackawanna region? A. Personally?

Q. Yes, or in any way. A. 1899 I entered into this business, in February.

Q. Were you not in the coal mining business in any capacity prior to that time? A. No, sir. My previous business was mine and mill supplies.

Q. What was the effect of this action by the independent operators, an account of which you recorded as secretary of the meetings? Did they secure a different freight rate?

MR. WARREN:—Objected to as not cross examination. No inquiry has been made of the witness as to any future dealings between the individuals and the railway coal companies, and he has not shown he has knowledge of what they did, for that matter.

A. I should say the establishment of the sixty-five per cent. contracts with its various provisions.

By MR. MCREYNOLDS:

Q. Prior to this meeting of October 5th, 1900, the old contracts upon the sixty per cent. basis were in existence? A. Yes, sir.

Q. And subsequent to this time the sixty-five per cent. contract was put into effect? A. Yes, sir, subsequent to the present time.

Q. Subsequent to the time of this meeting you mean. Subsequent to October 5th, 1900? A. Yes, sir; the date is on record.

Q. And that sixty-five per cent. contract has been in force ever since? A. Yes, sir.

Q. Under the sixty per cent. contract the individual operator got for his coal, from the transportation companies, sixty per cent. for the prepared sizes of his coal, of the average selling price at tidewater?

MR. WARREN:—Objected to because it is not cross examination.

A. Yes, sir; I do not think it was the average price. Those who sold to the Lehigh Valley I think obtained sixty per cent. of the price that they received; while those who shipped to the Lackawanna people obtained sixty per cent. of the price they received. In that case it was not an average price, while the price of the sixty-five per cent. contract is an average price of the price received at tidewater.

By MR. MCREYNOLDS:

Q. That difference in the basis upon which the compu-

tation was thereafter to be made, was fixed? A. That is my recollection of it.

Q. Did this committee composed of Mr. Connell and Dr. Howe and Mr. Kemmerer, appointed to confer with the various carrying companies relative to a new contract, ever make a report? A. Not to any meeting that I recall. We did hear—when I say we, I mean the individual operators—and we were all interested in it to know the result of what they had accomplished. They in time reported a form of contract and at various times, as I recall it, I saw rough drafts, of various sections, and not to individually pass upon them, but just as a matter of showing my interest in it. And after those had been discussed by different men who had been in the business for a long time, the present sixty-five per cent. contract, and the one now in use, was formulated and adopted.

Q. And entered into by these parties? A. And entered into by most of them. There may be some there who did not.

Q. How long after this meeting before the price of coal was advanced?

MR. WARREN:—Objected to as not cross examination.

A. I would be glad to answer, but I cannot from my recollection.

By MR. MCREYNOLDS:

Q. Was it shortly after this? A. I think it was very shortly.

Q. How much was it advanced per ton on the prepared sizes shortly after this meeting?

(Mr. Warren enters the same objection.)

A. I could answer that positively if I referred to papers that are not at hand now.

By MR. MCREYNOLDS:

Q. Fifty cents a ton, was it not, on the prepared sizes? A. Something like that.

Q. That advance was made by the transportation companies at the same time, as you understand it?

MR. WARREN:—Objected to as not cross examination, or competent.

A. I cannot answer that.

By MR. MCREYNOLDS:

Q. You make a few figures there for us. If coal was worth at tidewater, four dollars a ton, and the railroad companies paid the miner sixty per cent. how much would that leave for freight?

MR. WARREN:—We object to this mathematical demonstration as incompetent, unimportant and not cross examination. The witness was called because he acted as secretary of the meeting, the minutes of which I desired to offer in evidence, and he was offered as competent proof of their being correct and true, before offering them, and for no other purpose.

A. Sixty per cent. would bring $2.40 to the miner for his coal at the breaker. Subtracting $2.40 from $4 would leave $1.60, whether it would be for freight or not I cannot say, because it may be for freight, and plus a charge for handling the coal at tidewater, of which detail I am not familiar.

By MR. MCREYNOLDS:

Q. Suppose coal was advanced to $4.50 a ton, and the railroad company kept thirty-five per cent. and gave thirty-five per cent. to the miner, how much would the railroad company get for its part?

MR. WARREN:—I interpose the same objection, as unimportant, incompetent, not cross examination, and as argumentative.

A. Thirty-five per cent. of $4.50 is $1.57½.

By MR. MCREYNOLDS:

Q. So far as the miner was concerned, as you figure it out there, it amounted to a reduction of two and a half cents a ton in the freight, did it?

MR. WARREN:—Objected to. In the first place it is a deduction made by counsel without any acquiescence by the witness as to the figures, or what they represented. In the next place it is an argumentation embraced in the record under the guise of cross examination. It might be a proper argument of this case before the court, but it has no place in the cross examination of the witness.

A. I can only answer by saying the difference between $1.60 and $1.57½ is two and a half. That is all I can answer.

By MR. MCREYNOLDS:

Q. The latter of these two conditions is two and a half. cents per ton better for the miner than the former.

MR. WARREN:—Objected to for the same reason as stated at length to the previous question.

A. It will have to answer it, yes; subject to the fact that I do not know anything about this matter, of freight rate.

By MR. MCREYNOLDS:

Q. I did not ask about freight rates. I asked you whether it was better for the miner. Has there been any change in the published freight rates of this railroad since 1900 on prepared sizes of coal? A. I do not know.

Q. When was coal next advanced in price? You say it was advanced immediately after October, 1900. When was it next advanced fifty cents a ton.

MR. WARREN:—Objected to as not cross examination at all.

A. I cannot answer that question.

By MR. MCREYNOLDS:

Q. It has been advanced, has it not? A. I do not know about that. I must answer that question without referring to the record, which is easily obtainable.

Re-direct examination.

By MR. WARREN:

Q. These minutes speak of the presidents of the transportation company and counsel for the Government has asked you about them as presidents of the transportation companies. You knew that the president of the Lehigh Valley Railroad Company was also the president of the Lehigh Valley Coal Company, did you not? A. Yes, sir.

Q. And generally speaking you understood that the same gentlemen who were presidents of the railway companies, that is to say the transportation companies, were presidents of the railway coal companies, that is to say

the coal companies that were controlled by the transportation companies? A. I so understood it.

Q. Then these expressions here, the presidents of transportation companies, are not exact so far as your proposed dealings with them, is that not true?

MR. MCREYNOLDS:—Objected to as leading the witness.

By MR. WARREN:

Q. In other words the object of the conference was, at the one at which you were present, I mean, of which you have given the record here, as shown by this proceeding, was to appoint a committee to deal with the presidents of the companies which they were associated with in the selling of anthracite coal? A. That is correct.

Q. Mr. McReynolds has asked you about the presidents of the transportation companies. Speaking of the minutes of the meeting, which are recited in this meeting, but of a previous date, "it was the sense of the meeting that if the railroad presidents agree to the reduction in freight rates and advance the prices of coal, the operators will post notice of advance in wages." That is the exact phraseology of that resolution. To whom was the advance in prices of coal to be made and what was the object of this conference of individual operators, to get what? A. To get an advance in their coal.

Q. This expression, to advance the prices of coal, means to advance the prices of coal to whom? A. To themselves.

Q. To the individual operators? A. The individual operators.

Q. So far as you heard it discussed in the meeting, and so far as you understand it, it had nothing whatever to do with the question of the advance of prices of coal to consumers in New York, or around America? A. Not at all.

Q. Why these individuals spoke of the presidents of transportation companies, as noted here, and the presidents of railway coal companies, it happening that two

of the railroad companies were themselves coal companies, that is, the Delaware, Lackawanna and Western, and the Delaware and Hudson, that led to a confusion here in the question as to the representative character of the gentlemen, with whom they were to confer? A. I think it did?

Q. In other words, you meant by this discussion to arrange to get into touch with the presidents of the coal companies, to whom this bunch of gentlemen were selling their coal? A. Yes, sir.

Q. Do you not recall that in the early fall of 1900, when this strike that you have already mentioned, was then in existence, that the presidents of the larger coal companies had announced their intention to post notices at their collieries increasing the wages of their men and reducing the charge to the men for powder. Do you not recall that? A. Yes, sir.

Q. And the question before you individual operators was whether you would go along with such advance of wages to your employees? A. Exactly.

Q. Is not that right? A. That is correct.

Q. And that is what this means when it speaks of the operators will post notices of advance in wages? A. That is what it means.

Q. That is what it was talking about? A. Yes, sir.

Q. Can you recall how long after this conference, of which you kept the record, the individual operators so-called, did post notices at their collieries of such advance? A. It was shortly after, because the work commenced.

Q. Some time after? A. Yes, sir.

Q. In other words, a short time after? A. Shortly after.

Q. I notice by the record, at the afternoon session, the presence of three gentlemen not present at the morning session, T. M. Righter, William H. Taylor and Frank H. Clemens. Do you know what individual operators those men were associated with? A. T. M. Righter is T. M. Righter & Co. I do not remember the names of

his collieries. W. H. Taylor was the St. Clair Coal Company of St. Clair, Pa. Frank H. Clemens represented the Wyoming Coal and Land Company.

Q. Which was an individual operation in Luzerne County. A. Yes, sir.

Q. The Righter operation, do you know where that was? A. In Schuylkill, I believe.

Q. In Schuylkill County? A. Yes, sir.

Q. St. Clair is in Schuylkill County, is it not? A. Yes, sir.

Re-cross examination.

By MR. MCREYNOLDS:

Q. Is your coal sold at tidewater now? A. Our coal is sold at our breaker.

Q. Where is it consumed? A. It is shipped on the line and some of it to tide. The great part of it, we call line shipments, in other words, does not go to tide.

Q. How much does it cost to carry your coal from your breakers to tidewater, and to sell it?

MR. WARREN:—We object to this as entirely outside of any examination by the witness in chief, and therefore incompetent.

A. I have testified that we sell our coal at the breaker and have nothing to do with the selling of it to the people who consume it.

By MR. MCREYNOLDS:

Q. I asked you how much it cost to take it from your breakers and sell it at tidewater? A. I do not know.

Q. What is the freight? A. I do not know.

Q. You do not know much about the coal business, do you? A. Not a great deal. Not as much as I wish I had.

By MR. WARREN:

Q. You have no occasion to investigate the matters that counsel for the Government has just asked you about, because you dispose of your product under your contract at the breaker's mouth. Is not that right? A. Certainly we do.

Q. It is no concern of yours what it cost to sell it in New York, or Kamschatka? A. No, sir, we receive money for our coal at our breaker and have nothing to do with freight rates nor with the sale of coal to the consumer.

By MR. MCREYNOLDS:

Q. What proportion of tidewater prices do you get for your coal? A. Sixty-five per cent.

Q. Flat? A. That is on prepared sizes, yes, sir.

Q. Flat, without any deductions? A. Without any deductions.

By JUDGE MOOT:

Q. I infer that that sixty-five per cent. price on prepared sizes at your breaker is on the weight at that time and place. Coal is weighed there, is it not? A. Yes, sir, weighed at the breaker.

Q. It is on that weight that this price is based on the prepared sizes? A. Yes, sir.

Q. The other sizes or steam sizes have different prices also on the weight of the coal at the breaker? A. Yes, sir.

Q. And those prices, on the other sizes, are also the prices that are usually paid under these sixty-five per cent. contracts? A. Yes, sir, with one exception.

Q. Which one is that? A. The Pea coal we give an allowance to Meeker & Co. of five cents a ton.

Q. You take five cents less? A. Less.

Q. Than the sixty-five per cent. tidewater price of Pea coal? A. Yes, sir.

Q. That is the only exception, only difference between the price you get from Meeker & Co. and the price usually paid under the sixty-five per cent. contracts? A. That is correct.

Q. How long have you been selling to Meeker & Co. under this arrangement, about? A. I think we shipped our first coal February 1st, 1901.

Q. Meeker & Co. are independent people, I mean people not connected with any of the railways, or the railway

coal companies, so far as you know? A. So far as I know they are sellers of coal.

Q. On an independent basis? A. I assume so. They are not connected with any mining operations I know of.

Q. So your company did not, in fact, avail itself of these sixty-five per cent. contracts with these railway coal companies that some of the other railway people did avail themselves of? A. No.

Q. Never entered into that contract with any of them? A. No, sir.

Q. Did your company tie up its coal for the entire life of the mine with Meeker & Co.? A. No, sir.

Q. It is a contract? A. It is a contract for a period of years.

Q. And does not run for the entire length? A. No.

Q. Does your company own the land where it mines its coal, or does it operate on leased lands? A. Leased lands, entirely.

Q. Lands leased from what concern? A. Some from the Lehigh Valley.

Q. Some from the Lehigh Valley? A. Lehigh Valley, yes, sir.

Q. What other companies? A. Altogether from the Lehigh Valley Coal Company.

Q. This coal you produce from lands leased from the Lehigh Valley Coal Company is only produced from their lands on which you pay that company a royalty? A. Yes, sir.

Q. Under a lease how old? A. I think it was 1891.

Q. Does that lease tie the tonnage up to the Lehigh Valley Railway Company, or any particular railway company, or does it leave it free to move as it will? A. We must ship it over the Lehigh Valley Railroad Company and deliver it to them.

Q. It does go over the Lehigh Valley Railroad? A. Yes, sir, their switches are in our breaker.

Q. You have connection with that railway company? A. Yes, sir.

Q. And although it is sold to Meeker & Co., it goes out over the rails of the Lehigh Valley Railroad Company? A. Yes, sir.

Q. Whether it is sold to line points on the Lehigh Valley Railroad, or whether it is sold at tidewater, by Meeker & Co., you cannot tell us, because you do not keep track of it after it leaves your breaker, as I understand you? A. Only to give the shipping receipts. In other words, follow shipping instructions given us by Meeker & Co.

Q. The coal is shipped on what? A. On the Lehigh Valley Railroad tracks.

Q. To such points as Meeker & Co. request? A. Designate, yes, sir.

Q. You have nothing to do with that? A. Nothing.

Q. Except to follow directions of the person to whom you sell? A. That is all, to whom we ship.

Q. You spoke about your understanding of these sixty and forty per cent. contracts, and of these sixty-five per cent. contracts, as being in force. Did you ever talk with any of these presidents of the railways or of the railway coal companies, on that subject, so far as you can recall? A. No, sir.

Q. Or with any of the other officials of any of these companies, on that subject? A. Only in a general way.

Q. You have talked with some of the officials of these companies in a general way? A. Just in a general way.

Q. Did you, yourself, have anything to do with the coal of the Stevens Company when it was sold to anybody under a sixty per cent. contract instead of a sixty-five per cent. contract? A. Yes, sir.

Q. When it was sold under a sixty per cent. contract, was it also sold at the breaker on the weight there? A. Yes, sir.

Q. The main difference being that it was sixty per cent. instead of sixty-five on prepared sizes, and a less per cent. on the smaller sizes? A. That is right.

Q. And also that instead of that per cent. being based

on the average at tidewater when you were selling under the sixty per cent. contract, your coal, it was based on the prices received by the Lehigh Valley Coal Company at tidewater? A. That is my recollection of it.

Q. There was also a difference in the provisions of the contract with reference to inspection and the rigor of the inspection in the two contracts was there not, as between the sixty and sixty-five, or don't you know anything about that? A. I do not remember that.

Q. Your duty in connection with the production of coal by the Stevens Company is really and mainly what? A. I was asked to go there at the request of our family, really. The former general manager was seriously ill, and had to give up his work, and I was asked to go there and act in that capacity. Not, as I have testified, because of my knowledge of the coal business, but to watch the interests of the stockholders, who are related to me by marriage.

Q. Your training for this business has not been a technical training, but your relation to this business arises out of the interests of those to whom you are related as stockholders and otherwise, in the business? A. Yes, sir.

Q. You are on the ground watching their interests to get as large an income for them as stockholders as you can from the operation of the mines? A. That is correct.

Q. I infer that you, or somebody connected with the coal that is produced, have reached the conclusion that more can be made by handling the coal in this way through Meeker & Co., than can be produced by selling it direct to one of the railways, or railway coal companies, under their sixty-five per cent. contracts? A. Mr. Meeker was the person upon whom Mr. Wisner, my brother-in-law, who was the vice-president and treasurer of our company at the time the change was made—it was his judgment that governed our corporate action almost entirely. It was his judgment and opinion that the coal should be given to Meeker & Co.

By MR. WARREN:

Q. Who lives where? A. His home was in Warwick. He is dead now.

Q. Warwick, New York? A. Yes, sir.

By MR. MCREYNOLDS:

Q. Is your coal a better grade than the average? A. No. It is not so good at present, as it has been, for the reason that we are in smaller veins, thin veins.

Q. But the average of the district? A. The average vein of similar thickness would be the average vein of the district.

ROBERT VAN ARSDALE NORRIS, having been duly sworn, was examined as follows:—

By MAJOR WARREN:

Q. Where do you reside? A. Wilkes-Barre, Pennsylvania.

Q. What is your profession? A. Engineering.

Q. Where did you take your degree? A. Columbia School of Mines, Class of 1885.

Q. Your degree was what? A. Engineer of Mines; represented by the letters C. M., the usual mining degree.

Q. Will you tell me your association, briefly, with both anthracite and bituminous mining? A. In June, 1886, I went to the Susquehanna Coal Company, one of the Pennsylvania Railroad interests, as assistant engineer. Until 1902 I remained in the position of assistant engineer, when I was made principal assistant engineer, up to 1900. In 1900 I was made chief engineer of coal companies comprising the Susquehanna Coal Company, the Mineral Railroad and Mining Company, the Lykens Valley Coal Company, Summit Branch Mining Company, and later the Union Coal Company and the Lytle Coal Company. I remained chief engineer to April 15th, 1904, when I resigned as chief engineer and was made consulting engineer of the same companies, since which time I have been in private consulting practice.

Q. For what companies? A. I am official consulting engineer for the companies I have just named, controlled by the Pennsylvania Railroad, and for the Delaware, Lackawanna and Western Coal Department. I am also

consulting engineer for the Stone Canon Consolidated Coal Company of California, and have been general manager of the same as a temporary office. I am consulting engineer for the Wilkes-Barre and Hazleton Railroad Company; the Sterling Salt Company, and I have been employed as consulting engineer by the Lehigh Valley Coal Company, the Lehigh and Wilkes-Barre Coal Company, the Delaware and Hudson Company, the Lehigh Coal and Navigation Company and the Stevens Coal Company, and possibly some others.

Q. Have you been employed as consulting engineer in connection with the construction of any storage plants? A. I built the McClellan storage plant of the Susquehanna as their chief engineer, and I was employed as consulting engineer in charge of the erection of the Ransom and Black Creek storage plants of the Lehigh Valley Coal Company.

Q. Are you a member of the American Society of Civil Engineers and Mechanical Engineers? A. Yes, sir.

Q. Are you a member of the Harvard University faculty? A. I am non-resident lecturer on coal mining at Harvard, which position I have held for the past three years, yes.

Q. You lecture there every year? A. I lecture there every year; I give the entire course in coal mining at Harvard very year.

Q. By-the-bye, the Stone Canon Consolidated Coal Company is engaged in mining what kind of coal? A. Bituminous coal.

Q. You are familiar, therefore, with the methods and practices associated with the development of bituminous and anthracite lands from the incipiency to the delivery of the manufactured product to the seller? A. Yes, sir; I am also a member and counselor of the Institute of Mining Engineers and a member of the North of England Institute of Mining Engineers, which carries with it membership in the Institute of Mining Engineers of Great Britain.

Q. Are you familiar with what are known as the anthracite coal fields of Pennsylvania? A. Yes, sir.

Q. And all regions? A. Yes, sir; I think I can say I am.

Q. Will you give us the topographical conditions, briefly, of those fields? A. The anthracite region is divided geographically and topographically into three fields, although they are usually divided, for convenience, into four. The Northern Field, occupying the Wyoming and Lackawanna Valleys, lies in a broad, canoe-shaped basin, in the vicinity of ninety or one hundred miles long and perhaps ten miles wide, in its widest place. The coal is generally flat and pitches up gently to the mountains which encircle the two valleys. The Middle Field, sometimes known as the Hazelton Field, lies in a very broken country, about twenty-five or thirty miles south of the Northern Field, and consists of a number of relatively very small basins, extremely narrow, and the coal on very steep pitches. The Southern Field begins at a point just beyond Mauch Chunk in a broad canoe-shaped basin, ending with two tails, one running practically east and west and comprising the Shamokin Field and the other running southwest and comprising the tail of the Southern Field. The Shamokin Field is usually known as the Western Middle Field, although it is an integral part and connected with the southern basin. The measures all through the Southern Field are generally steep. The Southern Field is intersected by several ranges, and, while the main valley of the main Southern Field is a broad valley, although not nearly so broad as the Northern Field, the upper tail cuts through the ridges, and runs in very broken country almost to Sunbury on the Susquehanna River.

Q. What do you mean by the expression pitch of veins? A. Pitch of veins is the inclination to the horizontal. A flat vein will have an inclination of usually not over eight to twelve degrees to the horizontal, while a pitching vein may range from twelve to fifteen degrees up to absolutely vertical or even reversed.

Q. What do you man by the outcrop of a vein? A. The outcrop of a vein is the point where the coal vein, or bed, as it is more properly designated, intersects the surface of the ground.

Q. Will you briefly describe the geological conditions of the anthracite field? A. The Northern Field, as I have said, is relatively flat, in a generally canoe-shaped basin, the coal extending generally in a sheet of very moderate inclination from one side of the field to the other, and being more or less continuous on very gentle declivities from the two ends toward the deepest point, which is a little below Wilkes-Barre. The field, however, while in general smooth, is intersected by a large number of faults and anticlinals, so that it forms a number of local basins, which involves separating collieries and arranging the collieries to mine between the particular anticlinals that can be reached without the cost of tunneling through the rock of these anticlinals. The Northern Field, too, is relatively deep, the deepest point being probably about twenty-three hundred feet, in the Hanover Township, Luzerne County. The Middle Field consists of a number of relatively very small basins, on extremely steep pitches, but not very deep. As far as I know, the deepest point in the Middle Field will not exceed five or six hundred feet. The field was presumably a basin similar to that of the Northern Field, but the coal on the anticlinals has been eroded off, leaving only the bottoms of the synclinals in the basins. The Middle Field, too, is peculiar in that the basins, being extremely narrow, it is frequently possible to strip the surface off the upper seams and quarry this coal instead of mining it by underground methods. The Southern Field is also intersected by very many faults, the Shamokin district particularly being really a series of canoe-shaped basins fitting into each other, and almost dividing the field into separate basins, as is the case in the Middle Field, although actually the coal almost invariably, the lowest seams almost invariably pass over the anticlinals, making a continuous sheet of coal, except for the faults; but, as a mining proposition, it is practically slight basins. The Southern

Field is the deepest of all, the deposit being figured to probably thirty-five hundred or four thousand feet in the deepest part. The pitches, as far as it has been mined, are extremely steep. The central part of the basin never has been mined. The Southern Field also is notable, in the eastern part at least, for the enormous "Mammoth Vein" which reaches its maximum development in the lands of the Lehigh Coal and Navigation Company, where its normal thickness is sixty feet and where, in abnormal places, it has been measured as high as two hundred and twenty-five feet and, in one instance, four hundred.

Q. What is the pitch of that vein? A. Vertical.

Q. Vertical? A. Vertical, in the thick parts. The bottom of the basin has really never been explored. As far as mined, the coal is very nearly vertical; it will stand from seventy-five degrees to ninety degrees.

Q. Will you give me the location of the collieries of the Susquehanna Coal Company and the other companies with which you were associated for so many years? A. Of the Susquehanna Coal Company, the collieries with which I was associated as chief engineer, comprise the Nanticoke collieries of the Susquehanna Coal Company located in the western end of the Northern Field; the collieries of the Mineral Railroad and Mining Company, in the western end of the Shamokin Field; of the Union Coal Company in the middle of the Shamokin Field; the William Penn colliery in the Mahanoy district, which is a part of the southern district; the Lykens Valley and Williamstown collieries in the extreme western end of the Southern Field, they being the only two collieries in Dauphin County. The Lytle colliery is at Minersville, directly in the Southern Field.

Q. Minersville is how far from Pottsville? A. I think about twelve miles.

Q. The Susquehanna Coal Company proper is situated where, with reference to Wilkes-Barre? A. The Susquehanna Coal Company collieries?

Q. Yes. A. The Nanticoke collieries are about eight miles westerly from Wilkes-Barre; but the Susquehanna

Coal Company now mine what were previously known as the Union Coal Company collieries and, in my time, were the Union Coal Company, in the Shamokin district, and the William Penn colliery and the Lytle colliery in the Pottsville district.

Q. Did you tell me how many of the collieries of the Susquehanna Coal Company were located in Luzerne County in the Northern Field? A. Three at the present time. There were five.

Q. Give me their names. A. Nos. 5, 6 and 7. Nos. 1, 2, 3 and 4 were in existence and operation when I went with the company as engineer, and have all been abandoned.

Q. Abandoned for what reason? A. Abandoned because the coal properly tributary to them was practically exhausted, and because the breakers had become out of date and, in the case of No. 2, unsafe.

Q. How many years have you resided at Wilkes-Barre? A. Twenty-three years.

Q. Continuously? A. Yes, sir.

Q. The offices of the Susquehanna Coal Company are in Wilkes-Barre, are they not? A. The mining offices are; the executive offices are in Philadelphia.

Q. You have retained your office there since you retired from the continuous service with the Susquehanna Coal Company? A. I have my principal private offices in Wilkes-Barre, although I also have offices in New York.

Q. Having resided in the Northern Field and having been familiar with the development of those regions for twenty odd years, will you tell us that which is within your knowledge as to the acquisition of coal lands by the various companies, large and small, and your observation of it during that time. A. There has been a relatively very small amount of coal land on the market at any time within my experience, that is, of the lands that were known to be profitable. In fact, I have examined a great many individual lands that did not promise to be profitable.

Q. For what companies? A. For the Pennsylvania,

for the Susquehanna. All the companies, and individuals, have snapped up every particle of land that came on the market and have been in apparently very keen competition for it.

Q. Each against every other fellow? A. Each against every other fellow. As a matter of fact, personally I have had control of a certain amount of coal lands, and one small piece that seemed desirable to sell, we had four offers for and it was finally sold at what has proved the record price of coal in the anthracite region, $3000 an acre.

Q. Which company finally got that land? A. It was bought by individuals.

Q. How recently? A. About three years ago.

Q. What individuals? Some associated with companies? A. No, not directly. It was bought by—the deed was given to Mr. A. L. Williams, an attorney in Wilkes-Barre. Who his associates were I do not know, although I have understood that Mr. Thomas of Pittston and Mr. Morris Williams of Philadelphia were in a way associated with him. This land, however, was entirely surrounded by lands of the Lehigh and Wilkes-Barre, and the Lehigh and Wilkes-Barre were outbid for it by individuals. During the same time the Lehigh Valley, within about three years, purchased the Warrior Run colliery, a body of land entirely surrounded by the Lackawanna lands, and are now operating it. The Lackawanna purchased and leased the Pettibone colliery, which is entirely surrounded by the Lehigh Valley lands and would naturally be mined by the Lehigh Valley. In the Southern Field there have been a number of purchases of lands apparently in the most vigorous competition. In the leasing, there has been extreme competition in obtaining the lands. This was particularly the case back in the late 80's, when two very large leases were made from Abram Nesbit to the Delaware, Lackawanna and Western at, I understand, a royalty of fifty-five cents a ton, and from L. D. Shoemaker to the Lehigh Valley, at, I know, a

royalty of fifty cents a ton. These royalties were higher then than have been the royalties of the large leases made within the last two or three years. The two largest recent leases that I know of were the Hollenbach Coal Company to the Lehigh and Wilkes-Barre, which, I understand, was forty cents a ton for prepared coal from some veins and thirty-five from others; and the Coxe Estate leased to—I do not know whether it was Coxe Brothers & Co., Incorporated, or to the Cross Creek Coal Company—but the price was, I understand, forty-five, forty and thirty-five depending on the seams.

Q. By-the-bye, you had some association with Coxe Brothers & Co., Incorporated, did you not? A. I was their consulting engineer for nearly four years.

Q. I now want to ask you about the cost of holding lands, and I wish you would put into the record, as clearly as you can, a statement that will show how the lands available to a colliery can only be presently reached—I mean the coal in them—in small proportions, and how it is necessary to have a large acreage, a large proportion of which must lie fallow, if I can use that expression, until, by the best scientific methods, the workings can reach those lands. Perhaps I have put that rather awkwardly, but I would like to have you tell us, if it is within your knowledge, what that is as a factor of cost in connection with, first, the acquisition, and second the necessary retention of lands until they can actually be reached. A. Your question has several points. First as to the cost of holding lands; I think it is fair to assume that the present market price of the best anthracite land approaches or equals $3000 an acre. I personally made the last fair sized sale at that price and I do not believe that it will be decreased for land of that quality. There is, as a matter of fact, very little of coal land of the quality then sold, which contained about sixty feet of coal, remaining.

Q. You do not mean in one vein? A. No, a total of sixty feet of minable coal. The cost of holding land,

then, for a considerable time would be made up of two items; first, the cumulative interest on the original investment, and second, the taxes, with the cumulative interest on them. The present taxes in the anthracite field are very closely four per cent., about forty mills, and the present valuation is about fifty dollars a foot acre, although that is subject to a decision by the Pennsylvania Supreme Court which, I believe, has not been fully rendered.

Q. You mean by foot acre what? A. A foot acre is an acre of coal one foot thick, which is the method by which coal has been taxed. Then the taxes per acre of coal sixty feet thick, which I will take as a basis, as being the best average of coal and as coal which would have a market price of $3000 an acre, would be about $120 a year per acre. Then for twenty-five years holding the $3000 first cost of an acre would stand the owner in $12,900, and $120 a year taxes, with compound interest at six per cent., $6600 more, making the cost of an acre twenty-five years hence bought to-day at $3000, about $19,500. Taking it for fifty years holding, the compound interest would multiply the present investment by about eighteen and four-tenths, making the $3000 amount to $55,200 approximately, and the taxes, with compound interest at six per cent., would amount to $34,020, which is a total per acre of $89,220. Such a piece of land would, under present methods of mining, be expected to yield about a thousand tons per foot acre, or about sixty thousand tons for the acre; so that fifty years hence the coal would have actually cost nearly a dollar and a half a ton.

Q. And twenty-five years hence it would be what? A. Thirty-two and a half cents.

Q. Now tell me, please, in what way these facts which you have given us are associated with the anthracite mining? A. I was going on to do that, as the second point of your question. In opening a colliery, it is necessary to be able to figure on a sufficient tonnage to warrant the present large expenditure in development and in breakers

and machinery, power plants, electric plants, and so forth. It is pretty generally conceded that five hundred acres of good coal lands is as little as should be tributary to a modern colliery, which will give a life of from sixty to eighty years. Then in mining, only a certain amount can be taken every year, and it is absolutely essential to get back your investment, to warrant your investment, to let the balance lie fallow until such time as it is reached in the natural course of mining. It is further impossible to mine all the seams at once, as such mining results in the loss of a very large amount of the coal, and the proper method of mining is to keep the upper seams always in advance of the lower ones, and, in mining back or robbing, the upper seams must be robbed first to avoid crushes in them dislocating the seams below and destroying the coal in place, which then could not be recovered.

Q. Could you give us a statement as to the proportion of the lands contiguous to a colliery which are idle, we will say, for ten years and then for twenty and then for thirty, having in mind the history of the development of colliery operations within your knowledge? A. Yes. I would say that in each ten years practically twelve and a half per cent—in each ten-year period practically twelve and a half per cent. of the lands contiguous or tributary to a colliery would be mined over.

Q. Of the railroad connections to a colliery, which of them are put there by the colliery companies and which by the company to whom the colliery company sells its coal? In other words, which are places constructed and built by the colliery and which by the railroads? A. That varies with different cases. Originally, for instance, all the colliery tracks from the connection with the Pennsylvania of the Susquehanna Coal Company were built by the Susquehanna Coal Company and owned by them. They were afterwards, except the breaker tracks, sold to the Pennsylvania Railroad. The usual practice, however, is for the colliery to own their breaker tracks, including the tail tracks and sidings, and for the railroad company to

run an extension or a spur, often to a very considerable length, to meet the end of the breaker tracks.

Q. You know something about railroad building? A. Yes, I have built two or three railroads, of minor amount.

Q. What would you say, recalling the topographical conditions of the anthracite field, what would you say by way of comparison as to the cost of constructing spur lines or branches into the colliery operations as compared with general railroad construction? A. The anthracite collieries are almost invariably in rough country, save a few in the center of the Wyoming Valley and a few in the center of the Pottsville and Panther Creek Valleys, and the construction of railroad to them is necessarily mountain work and exceeds in expense the ordinary cost of railroad building through the country, although I do not think it does exceed the cost of the ordinary mountain work of railroads.

Q. How much does it exceed, would you say, the cost? What is the difference in the initial cost of construction of such branches into the collieries and building into the regions of the main lines, by coal roads, I mean? A. I do not think I could answer that. The cost of construction of colliery branches has been, as far as my knowledge has gone, $40,000 a mile. That is what we usually have allowed for it in estimates; but I have no knowledge of the cost of building coal roads in. The ordinary cost of building railroad in flat country does not exceed $15,000 or $16,000 a mile. I built twenty-four miles of railroad last year that cost about $14,000 a mile.

Q. These switch tracks and tail tracks and other tracks in connection with the colliery, of course, are worthless when the colliery ceases operation? A. Except as to the iron, yes.

Q. I mean, for any other purposes than what salvage there may be? A. Yes. Furthermore, I might say, in connection with that, that the switch tracks and sidings of an anthracite colliery are very extensive on account of the necessity of loading many different sizes and classify-

ing them, as well as the large output of modern anthracite breakers.

Q. And they have required what re-arrangement, if any, due to the introduction in the last ten years of different sized railroad cars of one sort or another? A. I can only answer that in connection with the Susquehanna and associated mines, of which I was chief engineer at the time of the introduction of large cars some ten or twelve years ago. It was necessary to remodel all the breaker tracks at every colliery. The cost, as I recall it, was considerably over $100,000 for the mere re-grading to a height enough to get the large cars under the lip-chutes of the breakers.

Q. By-the-bye, the Susquehanna Coal Company buys coal from so-called independent coal companies, in other words, from coal companies other than those which are controlled by the Pennsylvania Railroad, does it not? A. I do not know. My experience has been entirely in the operating end and I have no personal knowledge of the sale or transportation of coal.

Q. You spoke a moment ago about the small amount of reserve in the Northern Field; will you tell us what that amounts to? A. By that you mean the amount of absolutely virgin territory available for new collieries, do you not?

Q. Yes, left to develop. A. Because there is a very large amount of reserve held in connection with the present operating collieries.

Q. And owned by the companies controlling the operating collieries? A. Owned or leased by the companies controlling such collieries.

Q. In other words, lying fallow? A. Yes.

Q. I do not refer to that. A. The only large bodies of undeveloped coal, which are not tributary to any present collieries, as far as I know, in the Northern Field, are two pieces between Nanticoke and Glenlyon, one owned by the Lehigh and Wilkes-Barre and one by the D., L. & W. The Delawere, Lackawanna and Western piece would hold one colliery and the Lehigh and Wilkes-Barre one

and possibly two. Between the Nanticoke lands of the Susquehanna and Wilkes-Barre City there is a large tract owned in fee by the Lackawanna road which has room now for four good collieries, which is absolutely undeveloped.

Q. How many years have you known that tract to lie fallow? A. I assume that your question refers to coal developed by a colliery?

Q. You have just said that the Delaware, Lackawanna and Western have some land there that might support two or three colliery operations. I want to know how long they have owned it? A. I do not know exactly. My impression is that was bought in the early 70's. It was not far from that. Taking the question as I understood it, the longest time that I have known of a colliery conducting an operation with reserves is the Lykens Valley colliery which, I believe, started operation in 1838 and is still in active operation and has reserves, at their present rate, for forty or fifty years more, or possibly more than that.

Q. Did you make for me, at my request, a list of the independent operators in Luzerne County, taking them from the State reports prepared by the mine inspectors? A. I did, sir.

Q. Is this that list? (Showing witness statement). A. Yes. This is taken from the 1907 Inspector of Mines Report, the report of the Secretary of Internal Affairs for the Inspector of Mines, in 1907. This is a list of the so-called independent operators in Luzerne County.

Major Warren offered the statement in evidence. Marked "Temple Iron Company's Exhibit No. 8, C. H. Guilbert, Examiner."

Q. Now, as to the development and equipment of the region, in colliery development, I mean, within the last fifteen years, and the colliery capacities, what have you to say as to that, in view of the acquisition of the lands by the several companies as you have suggested? A. I do not know as I quite understand the question.

Q. Let us see if I can state that a little more clearly. Has there, or has there not been, within the last fifteen or twenty years and up to, we will say, the last seven years, an over-equipment of colliery capacity in excess of the ability to dispose of the product? A. Yes. When I came into the region and up to a very few years ago, there was a very decided over-equipment in the region. The collieries which are practically identical with the collieries to-day which are shipping 75,000,000 tons, were supplying a market of only half that amount, while they had a capacity of double their shipments. The market has greatly caught up to the equipment of the collieries, until, at the present time, or except this last year when there has been a slacking off owing to a business depression, the collieries were working practically full time and up to capacity, as far as I know.

Q. Say within the past six years, the question of mining then, has been only of mining sufficient coal to supply the market, rather than to find a market for the coal that could be produced? A. As far as the operation of the collieries is concerned, I believe that to be the case. I do not know about the market itself. I simply know that the collieries have been working full time and practically full capacity. Furthermore I know that, as the mines are extending, it is becoming more and more difficult to maintain the output of the separate collieries, both on account of the mining of the thinner seams and on account of the greater extent of the workings requiring longer haulage and more ventilation, and so forth. Many collieries, too, are beginning to play out, and it has been necessary, in instances, to consolidate what were previously several shipping breakers and bring all their output to one breaker in order to give that one breaker its capacity. A particular case of that would be the William A breaker of the Lehigh Valley Coal Company which, at the present time, takes coal from what was previously the William A colliery and also from the Laurence and Babylon workings, both of which have

been worked over, and even at that the William A colliery's output is not up to the capacity of the breaker, although three collieries have been consolidated to give it coal. The same thing is being considered with other companies and there are other instances—although I do not recall any at the moment, but I can if it is necessary—but the same thing is being considered in many places where it is becoming almost impossible to keep up the output of individual breakers.

Q. In this connection, I show you some tabulations on sheets of paper which I will ask you to identify and tell me what they are, what they represent, and the sources of the figures which there appear? (Handing statement to witness). A. These sheets were made from the Inspector of Mines Reports for the years 1899 and 1907, showing the tons shipped, breaker hours worked, number of employes and miners in total, the number of employe hours for miners and for all classes of employes; the tons shipped per employe hour for miners and for all classes of employes; and the increase or decrease of the amount shipped per miner hour of 1907 over 1899. It is taken from the Northern Field only, comprising all the operations in that district, except that the operations of individual collieries which do not appear in 1899 have not been put in, as there is no comparison. Individual collieries which were operated in 1907 but not in 1899 have not been put in there, as there was no basis of comparison for them, although any change in ownership has not been considered. If a colliery appeared in 1899 the ownership has not been considered in putting it in in 1907 as an operation.

Q. But the same colliery is put in? A. The same colliery is put in, is named and put in.

Q. Will those tables thus prepared show the deficiency or otherwise in the output per miner in labor, in other words, in 1907 as compared with 1899? A. Yes.

Q. In other words, this is for the comparison of conditions in 1899 as compared with conditions in 1907? A. Yes.

Major Warren offered the statement in evidence. Marked "Temple Iron Company Exhibit No. 9, C. H. Guilbert, Examiner."

Q. In the past twenty years to what extent, if any, has the cost of equipping a colliery increased? A. The total cost of equipping a colliery has more than doubled in the past twenty years, and the cost of building a breaker has more than quadrupled. The breakers that were built when I started in the region, the cost of the largest would not exceed $50,000, while the cost of a modern breaker alone is from $150,000 to $200,000, and, with its necessary steam equipment, and so forth, often double that. The cost of sinking the large modern shafts that are required to handle the large outputs, runs into enormous sums of money. One shaft which I was in charge of sinking, completely equipped, cost $846,000 complete, without any breaker or any mine workings, but including the sinking of the shaft, the hoisting plant, the steam plant, the surface and bottom turnouts for the mine cars and the water hoisting equipment.

Q. Can you give a comparison of the cost of a colliery, say at any time prior to 1890, with which you were personally familiar, and the cost of the construction of a colliery similar in its makeup after 1900, with which you may have been familiar? A. Yes.

Q. Please do that. A. One colliery equipped from 1883 to 1886 cost a total of practically $324,000, and a similar colliery equipped between 1905 and 1907, $603,000. The breaker of the first colliery, in 1883 to 1886, cost $28,000, and of the second one, $143,000.

Q. What increases have there been in labor cost, that is, in the wages of labor, in the last ten years? A. In the wages of labor there have been advances. In 1900 a powder adjustment amounting to about seven and one-half per cent. on the miners' wages, and an increase of ten per cent. on the general wages at the collieries; in 1902 a further increase of ten per cent., making twenty-one for the general employes and twenty-eight and one-half for the

miners, together with a sliding scale which was granted in 1902 and which amounts to an average of about four per cent. a year.

Q. That aggregates what figure then in additional labor cost in ten years, to the miners? A. It amounts to twenty-five and eight-tenths per cent. advance for the general employes and thirty-three and three-tenths per cent. advance for the miners.

Q. The miners are employed in what way? A. The miners are employed in cutting and loading coal.

Q. Under what agreement, what form of agreement? A. That varies in the different regions. In the Northern Field they are almost invariably paid by the mine car load as a unit.

Q. Then they are contractors? A. In all cases they are contractors. In the Southern Field, in all steep pitching veins, they are paid by the yard of chamber driven, as it is necessary to leave coal in the chambers and it is not practicable to pay them by the mine car, as they might not receive their pay for many years. They are in all cases, or almost all cases, contractors who agree to drive a chamber or a gangway for a certain price per car of coal and, in the case of gangways or narrow work, an additional price per yard of gangway or cross-cut driven. In a few cases they are paid by the day, by the operator, in which case they are known as company men and usually are employed in places where it is impossible to make a contract with a miner to do the work. The contracting miner supplies his own labor and his own powder and tools; the company miner supplies nothing except, in some cases, his oil and his tools. The company miner, the company supplies him with powder and supplies him with labor.

Q. What proportion of the labor cost of a ton of coal is represented by that which you pay to the miner, would you say? A. That varies very largely in different collieries.

Q. Can you give me any fair approximation or average

of that, so that I can put into the record a fairly representative statement of the proportion of the labor cost that goes to the miner, as to which some of those increases apply, where it does not apply for other kinds of labor at the collieries? A. Usually from forty per cent. to sixty per cent. of the total cost of mining coal is paid directly to the miner for cutting and loading.

By MR. MCREYNOLDS:

Q. Of the labor cost, you mean? A. The total labor cost.

By MAJOR WARREN:

Q. Forty to sixty per cent.? A. It varies very largely in different collieries. It varies very largely indeed in different collieries.

By JUDGE MOOT:

Q. What I am not sure is whether you mean total labor cost or mine cost? A. Total mine labor cost.

By MAJOR WARREN:

Q. That is, of the total wages paid to the men and for all employes of the colliery in the mining and manufacturing of the coal into a marketable or loadable commodity, from forty to sixty per cent. is paid to the contract miner? A. Yes.

Q. The balance is paid to what class of what employes? A. All classes, inside and outside.

Q. I mean, they have what to do with the manufacture of the product? A. The laborers inside and outside, pump men, engineers, breaker men, slate pickers, carpenters, blacksmiths, machinists, superintendents, foremen, door boys, drivers.

Q. But not all the labor inside, because you have just said that some of the labor inside is paid by the contract miner? A. That is the miner's laborer; outside of the miner's laborer. The miner's laborer is not ordinarily recognized as separate from the miner. The miner is paid for his contract and he is supposed to pay his laborer.

Q. Are these figures, from forty to sixty per cent., as

close as you could state? In other words, can you not get those figures nearer, and do it fairly, I mean, as representing the average in the region, of the proportion of the total mine labor cost which goes to the miner? Could you do it by giving it some consideration and going over your figures? A. I might do it.

(At 1 P. M. a recess was taken until 2 o'clock P. M.)

2 P. M.

Counsel present:—Messrs. McReynolds, Moot, Warren and Campbell.

R. V. NORRIS, resumed:—

Direct examination (Continued.)

By MR. WARREN:

Q. Can you now give us any figure that will more closely approximate any one in this figure, the per cent. of the total labor cost, which has to do with the miner. A. No. The difference in various collieries is so great that it will range between forty and sixty per cent. of the total cost. Without taking all the collieries in the region, and spending some weeks on figures which are not available to me, I would be unable to give you that average.

Q. Did you give me your estimate of the cost of construction of the modern breaker to-day? A. I did.

Q. Including outside equipment? A. Including outside equipment it will approximate from $400,000 to $500,000. That would depend on how much of the outside equipment you would consider as belonging to the breaker.

Q. Have you any knowledge of the increases of outside labor cost, for the Wyoming and Lackawanna regions in the last ten years? A. Yes; in certain cases.

Q. Can you give us those percentages, and put them into the record? A. In the Wilkes-Barre region, taking certain

collieries, the increased inside cost between 1899 and 1908 ranged from about thirty-four to sixty-four per cent., with an average of between thirty-five and thirty-six. In the Lackawanna region, for the same time, in one large operation, the average was practically sixty-two per cent.

By MR. MCREYNOLDS:

Q. That is in one company? A. Yes, sir.

Q. What company is it? A. Temple.

By MR. WARREN:

Q. Temple Iron Company? A. Yes sir.

Q. Which has several collieries? A. Yes, sir.

Q. Are they, or are they not, with your knowledge of the Lackawanna region, typical of the average conditions as to veins and cost of mining for that section of the Wyoming field? A. Yes, sir; I should think they were quite typical of the Scranton district. They are not typical of the Luzerne district.

Q. Now I would like to ask you whether those colliery operations, as to which you have made investigations, and of which you have spoken here, are typical in like manner of the Luzerne field of the Wyoming region? A. Yes, sir; I should consider them quite typical.

Q. What increase, if any, has there been in the cost of the material used at the mine in the same period of time, from 1899, as compared with the present time? A. It is somewhat difficult. I do not know that I can answer that directly. The material is so interspersed among the different items of cost that it is quite a difficult matter to separate it. In one particular company, and two different collieries, the cost of material increased from fifteen to thirty-eight per cent., with an average of about sixteen for that number of collieries in the Wyoming region.

Q. From the investigation which you have made, typical that you have in the Northern Field, what would you say has been the total increase in labor cost from 1899 to 1908. A. In the Luzerne district, from twenty-five to thirty per cent., and in the Lackawanna district from forty-five to fifty per cent.

Q. What has the increase in cost of mining been about, in between 1879 and 1908? A. The only cost which came under my observation—I was not in the region in 1879—was in an agreement made between the Kingston Coal Company and the Lackawanna, for mining a certain part of the Lackawanna land, in which the payment was dependent on the cost of mining only. The basis in the agreement, which was the cost of mining in 1879, was forty-eight and forty-six one hundredths per ton on prepared coal. The settlement in 1908 also on prepared coal was at the rate of one dollar thirty-one and nearly eight-tenths or an increase of about one hundred and seventy-three per cent. That is based entirely on prepared coal.

Q. This increase in cost has been accompanied by what decrease, if any, in the efficiency of the individual miner? A. There has been a marked decrease in the efficiency of the individual miner. In the figures which were put in evidence this morning, taken from the mine inspector's report, the efficiency of the individual miner was figured in tons output per hour work during the years 1899 and 1907. The average decreased efficiency of the entire region was thirteen per cent. The variations among the large corporations were from forty-one per cent. to one and two-tenths per cent. Among the individual operators from sixty-four per cent. increased efficiency, which was from the Red Ash Coal Company, and I happen to know that it was due to the stripping of coal.

Q. Which is a cheaper process? A. Very much, and a different process—to fifty-nine per cent. decrease at the Stevens Coal Company.

Q. Your last figures there are for the year 1907. I might have put them in the record, but I want to be sure about it. A. They are for the year 1907, the last years, which is from the mine inspector's report. It is the figures of 1899 to 1907.

Q. You could not get 1908 figures because they are not yet prepared and published? A. No, sir. I want to add to that that these figures are the totals of the different operating

coal companies, and individuals, and not for individual collieries. I have not worked out the percentages for the individual collieries. I do not know how they may vary.

Q. This decrease is due to what, in your opinion, and from your knowledge of the business, that is this decrease in output? A. The decrease is due to two causes. First, to the mining of thinner seams and secondly, to an actual decrease in the work done by the miner.

Q. In the efficiency of the man? A. In the efficiency of the man. In the thinner seams below six feet it is necessary for the miner to remove a certain amount of rock, and, as the seams get thinner, this amount of rock increases. So that where a man would perhaps run six cars from a six foot seam of coal, in a three foot seam he might mine three cars of coal and three cars of rock during the time he was previously mining six cars of coal. Roughly figuring it from the imperfect data, about one-third of this decrease is due to mining thinner seams. It would be practically impossible to make an investigation sufficiently detailed to give anything more than a very rough guess at it.

Q. These increased costs you say are based on total output. Now, if they were based on prepared sizes only, which I think the record shows were the only sizes shipped in the earlier years, to what extent would that affect the per cent. of the increased cost? A. Taking the Northern Field only—I could hardly answer for the other fields—the average percentage of the prepared sizes at present approximates sixty-five per cent. On that basis there would be a further increase of about fifty-four per cent. to be based entirely on prepared sizes.

Q. The other, or smaller sizes, they are called products, are they not? A. By-products.

Q. Which of course decreases the total reported cost of mining, because they are now included? A. Very materially.

Q. I would like to ask you as to whether it is a fact or not, that not a pound of the coal under the prepared sizes ever has been, or can be sold at a price equal to the

average cost of the mining and preparing the entire output? A. From every investigation I have ever made and from every conversation I have ever had with any one understanding the cost, I believe that in no case, except during the strikes, has there been one pound of coal under prepared sizes sold at the average cost of the mining and preparing all sizes of coal.

Q. You mean to say by that, it has never brought as much? A. It has never brought as much as its average cost.

By MR. CAMPBELL:

Q. The average cost? A. As the average cost.

By MR. WARREN:

Q. Of course you know about washeries, do you not? A. I built a few.

Q. The statistics show a production from washeries during the years 1906, 1907 and 1908, of a certain per cent. of the total production of anthracite coal? A. Yes, sir.

Q. Do you know what it discloses as to percentage during these last three years? A. Yes, sir, I think I have it somewhere. From *Seward's Coal Trade Journal*, which is considered an authority on statistics of that sort, the washery production in 1906 was six and ninety-one one hundredths per cent., 1907, six and twenty-one one hundredths, 1908, estimated at six and two one hundredths, in the 1909 edition.

Q. This amount has also been figured in the cost of coal, has it not? A. Undoubtedly.

Q. If an allowance were made for this, to what extent would it raise the difference in cost? A. About sixteen and two-thirds per cent.

Q. Tell us briefly the method of obtaining washery coal? A. Washery coal, as is generally understood, is coal washed from banks that have been dumped as refuse in the course of earlier mining. A special building is erected, with screens, rolls, and usually picking devices. The bank is elevated into this building *en masse*, and the smaller

sizes, which are practically all that remain in the bank, are screened out. The term washery comes from the fact that in order to clear the previous refuse from the dirt attached, it is necessary to use very large volumes of water in washing the coal. It is a wet process, in which the coal is soaked with water, a very large volume of water poured on it in the course of making that preparation. In many cases the banks are mined hydraulically, and sluiced to the washery, there to be elevated and passed over the screen. In other cases they are removed by either shovels or by moving conveyors; occasionally loaded into mine cars to take them there, but very rarely.

Q. How does the cost of preparing that stuff from the dump, by the preparation you have described, compare with the cost of manufacturing the coal as it is ordinarily spoken of as ordinarily mined coal? A. It costs about the same, or a little more, for preparation. There is no inside cost at all. The preparation includes the picking it up from the bank. In very well located banks, where it is possible to use the hydraulic method all the way through, the preparation cost is rather less than the ordinary preparation cost of coal mined in the colliery; but as a rule it is greater.

Q. The methods of mining in use up to the last ten or fifteen years, how were they in the matter of economy or wastefulness in view of the obtaining of the larger ultimate production from a given area? A. The older methods of mining were apparently—I know they were—laid out with a view to getting the largest amount of coal in the shortest possible time, and little or no consideration was given to the future second mining, or robbing of the mines. There was removed from the mines—and by that, don't lead me to say shipped—from sixty to sixty-five per cent. in the original first mining; with the result that the pillars left have not generally proven sufficient to support the surface without serious squeezes and crushes, and were very largely so inefficient that it is practically impossible to do any considerable amount of second mining.

By MR. CAMPBELL:

Q. Which is robbing? A. Which is robbing, yes, sir. I prefer to call it second mining.

MR. CAMPBELL:—In view of the term having been used before, I would like to have that differentiation put on the record.

By MR. WARREN:

Q. In common parlance the second mining is called robbing of pillars? A. Yes, sir.

Q. Although it is not a correct statement at all, is it? A. I have always objected to the term, because it is merely proper mining. I have generally avoided using the word robbing. The term robbing involves a crime, something wrong. There is nothing wrong in mining all the coal. It is something we consider very creditable.

By MR. CAMPBELL:

Q. It is simply winning out the coal that has been left in these pillars? A. Yes, sir.

Q. That generally is called amongst miners, robbing? A. The term second mining is coming in very largely to use instead of robbing.

Q. The term robbing is inclusive of what you mean when you express it as second mining? A. Yes, sir. I mean robbing in the general acceptance of the term. The modern system of mining which is coming into use within the past ten or fifteen years is almost radically different. The original removal at the present time varies from thirty-five to forty-five and at most fifty per cent., leaving pillars which are more than enough to support the superincumbent strata. When robbing, it is possible to have sufficient support to keep up the territory that you want to rob, and practically a much larger percentage of the total coal can be removed by the coming back, with strong enough pillars to hold that squeeze. To explain the technical reason for it, in removing the total support from a part of a worked over area, a very great pressure is brought from the roof on to the pillars where robbing is proceeding. If those pillars are strong

enough to protect the roof the pressure does not extend any further, and it is possible to go on and take those pillars. On the other hand, if the pillars are so weak that they crush down under this pressure the pillar next to the opening crushes and that brings a pressure on to the next pillar and they crush, and what is known as a general squeeze takes place. Such a squeeze may extend, and I know in my experience has extended for one hundred acres or more, ruining all the coal in that seam and territory. Furthermore the old system of mining, caused by the necessities of the case in the way of selling price, presumably the necessities and also by the desire of the operators to get their money as rapidly as possible, was to mine the larger and cheaper seams first, without regard to their relation vertically in the measures; so that taking three seams, of which the middle might have been the larger, the middle would have been mined out first, and mined out very thin, with the minimum of pillars; so that when one seam squeezed the seam above it was practically ruined As an example of that, I was only three days ago in the Old Twin colliery, where there had been a very serious squeeze—it is now the Seneca. There had been a very large squeeze in the middle Red Ash. The upper Red Ash in a certain section lying above it, was nearly three feet thick, which was not a profitable, minable seam at the time that the lower seam was mined. The lower seam had come down, and the company were attempting to open the upper seam. Going into this place we found that probably sixty per cent. of the coal in this upper seam had been crushed into a powder that you could mine out with your hands. The balance was so shattered that I did not think it would have made any coal above stove, and very little of that. The percentage of smaller sizes of coal that remained would, in my judgment, have been from sixty to seventy per cent. instead of about thirty-five. The modern system, the system that is being pursued now by the large operators, is to mine out the seams in vertical sequence without regard to their relative thickness, mining the upper seams, and leaving them so that

no squeezing of the underlying seam will affect the upper and virgin seam. Doing the mining in this way involves an enormously great increased cost of mining. In the first place it involves the mining cost, and secondly, involves a very largely increased haulage and development from the gangways and airways and crosscuts, all of which are unprofitable. Where the chambers were formerly fifty feet, they are now perhaps seventy. With every chamber working there is an addition of twenty feet of haulage, making in a very short time an enormous increase in the haulage cost of the mine. There is also an increase in ventilation because the airways are cut longer, and possibly a small increase in the pumping cost. The main increase, however, will be in the development in transportation, and in pumping.

By MR. WARREN:

Q. Following those modern methods, which you say the largest companies are now doing, what effect will that now have on the ultimate production? A. The ultimate production should be increased from at least fifteen per cent., and we hope about twenty. The methods now used, as we consider, are the most scientific that we can use in the anthracite region, as far as our knowledge goes to-day, and it is being done almost regardless of present earnings, present cost. Any seam that is minable at all is being mined without pushing the large seams beyond the limits of the smaller ones. The effort is being made to cut the seams vertically, the upper seams ahead of the remaining seams below, and to draw back, or rob, the upper seam, ahead of robbing the seams following it.

By MR. CAMPBELL:

Q. This is in the way of the conservation of those deposits? A. That is the purpose.

Q. So as to be ultimately put on the market? A. That is the purpose.

Q. Saving that which otherwise would be lost? A. It would be as far as we are making an absolute loss, and a very large amount has been absolutely lost. I believe that

the Coal Waste Commission, which was headed by the late Mr. Eckley B. Coxe, reported that only about one-third of the coal in the ground had eventually gotten to market. We hope to get very nearly two-thirds of the coal in the ground to market, or better.

By MR. WARREN:

Q. In line with Judge Campbell's question, which was in my mind before he asked it, let me read you a sentence from page 453 of the "Award of the Coal Strike Commission;" "In the study of anthracite conditions, one cannot but be struck by the thought that a commodity so valuable and indispensable, lying within a small area, limited in quantity, should not be wastefully mined, and that the needs of future generations should be considered and their interests conserved." Calling your attention to that extract, is that in line with the methods which you say have, in recent years, been adopted by the companies? A. It is; yes, sir. I might further say in connection with that, that a number of the companies are using what is known as the method of flushing, washing in coal dirt, or ashes, or other materials, into the parts that have been mined, to protect the pillars, with the hope of being able to remove a large percentage of the pillars ultimately.

By MR. CAMPBELL:

Q. That is done to a very large extent in some localities where the very thick veins are? A. Yes, sir. Several of the Lehigh Valley collieries, the collieries of the Plymouth Coal Company, some of the Lehigh and Wilkes-Barre, some of the D., L. & W. All of the collieries that have such deposits are flushing to a greater or less extent. At a great many collieries it is an actual fact that they are breaking the large refuse, pounding it to dust, and flushing it in with the culm delivered from the washeries, and attempts are even made to flush in surface dirt and sand.

By MR. WARREN:

Q. For the reasons which you have very interestingly stated, at least to me, and because of the exhaustion of the thicker seams in the Northern Field, as to certain localities,

the average thickness of the seams mined to-day, will you tell us whether that has decreased or increased materially in the past ten years? A. It has decreased very materially in the past ten years. Take for example, District No. 1, of the Lackawanna mines, which is in the Scranton district, the average thickness mined in 1900 was five feet two inches. In June, 1907, the average thickness of the seams mined was three feet eleven inches. In the Temple Iron Company, during the same years, the average thickness in 1900 was six and thirty-five one hundredths feet. In 1908, in this case, the average thickness was only three and two-tenths feet. This has involved a very great increase in what is known as yardage cost.

Q. Can you give me a statement of that, and illustrate it so as to show the comparative increase in cost in view of the various thicknesses of the seams? A. Yes, I think I can. Possibly I should explain what yardage is.

Q. Yes, do that. A. The miner is ordinarily paid by the mine car as a unit of price. Where he has to remove roof, or take off bottom, and bring his mine car into his chamber, he is paid a price for the removal of rock. That price is usually fixed, based on removing one inch thick for one yard, the distance of his chamber, and known as an inch a yard. The price for that varies from five and a half cents a car, as a minimum, to eleven cents in the hard sand stone following some of the Red Ash seams, as a maximum. Furthermore, where the rock is unusually difficult, or where it has to be loaded out, there is a further price paid the miner in direct yardage per lineal yard the distance of his chamber. That price is not regular, and is usually figured to be sufficient to bring his wages up to the minimum wage paid the company miners, and that is known as paying him on the rib or direct yardage. Ordinarily, they speak of giving him so much on the rib.

Q. On the rib? A. Yes, sir.

Q. What is the rib? A. The side of his chamber, so that a miner is paid first, his rock yardage, for taking

down rock, and an additional price along the rib, really to make up his wage to an amount which will persuade him to work in a particularly disagreeable place. The regular yardage allowance is dependent on a number of items, but, taking an example of a twenty-four-foot chamber and a seventy-seven cubic foot car, the yardage amounted, for a five-foot seam, to about ten per cent.; for a four-foot seam, about twenty-six per cent., for a three-foot seam, about fifty per cent.

Q. Fifty per cent.? A. Yes, over the cost of mining, additional to the cost of mining. For a two-foot seam, seventy-eight and one-half per cent. and, if a one-foot seam were mined, it would have amounted to two hundred and twenty-five per cent. The allowance along the rib is not susceptible of calculation. It is simply a personal factor, paid to keep the miner at work in places where it is disagreeable that work should be done.

Q. Tell us, please, what you would say was the average increase throughout the entire region in 1908 as compared with 1899, of the yardage allowance. A. I cannot answer for the entire region. For one company in the Wyoming region the average increase was fifty-six and one-half per cent., and for one company in the Lackawanna region, fifty-nine and two-tenths per cent. I would judge that the increase in yardage throughout the region would probably be in the vicinity of forty per cent., between forty and fifty per cent., as I think both of those companies were rather higher than the average in yardage allowance.

Q. What is the minimum thickness of seam that can be mined to-day? A. In the flat measures, the minimum thickness of seam which can be mined without loss varies at the different collieries, depending somewhat upon the other costs, but the range, where I have studied it, and I have studied it in a number of places, is from thirty-two to thirty-six inches, as a minimum of coal that can be mined without actual loss, and the pitching measures, where yardage is not necessary, where a thinner seam can

be mined, probably down to two feet, without actual loss, possibly a little below two feet.

Q. I asked you about the minimum seam; I meant by seam, vein, of course. A. Bed would be the proper word.

Q. Those seams, speaking generally, in our Northern Field do not consist—we will take a three-foot seam for instance—of three feet of pure coal, do they? A. Never, in any of the regions. The coal bed is a series of laminations of coal, slate, bone, sulphur, and often sandstone or rock. Beginning at the top of the seam you may have a piece of six inches of good coal and then a piece of bone an inch or two, and possibly more coal, then some slate. A great many of the seams have a center band of rock, often amounting to several inches. In many cases these center rocks enlarge through parts of the region and split an otherwise workable seam into two unworkable ones. An example of that would be the Marcy seam in the Seneca colliery, which I happened to be in last week and followed that splitting. The upper bench was about three and a half feet at one end of the property, with a five-inch rock divider, and about three and a half feet of bottom coal. A thousand feet from that the rock divider had risen to three feet, and another thousand feet it had risen twelve feet, eventually getting to thirty feet and, to make matters still worse, the two benches, one at the top and one at the bottom seam, had in that distance changed from coal through bone to absolute slate, so that, instead of one seam with seven feet of coal in about nine feet of seam, we had two little seams each containing less than three feet of coal with thirty feet of rock between them.

Q. Are such conditions encountered in a given tract, associated with one operation? A. Yes. The one I have just described was on one operation.

Q. Is that typical of conditions in the Northern Field? A. It is typical of conditions that may, and frequently do, occur in any colliery. Another example would be the

two lower Ross seams in the Glenlyon colliery of the Susquehanna, where in the shaft they were together, making a seam nearly nine feet thick. A parting rock came in which eventually reached sixty feet in the same colliery, and left two seams each about four feet thick, which was a very different mining proposition. Another instance I could take would be the behavior of the bottom vein, known in the different parts of the region as the Red Ash, the Dunmores, or the Lee seam. Following that seam through the region, it is economically missing out at the western end of the field. For three miles—four miles—it is only found as a streak. At the stern shaft of the Susquehanna, the seam has grown to about fourteen inches. At the west line of the Nanticoke property, two miles further east, the seam has grown to about four feet. Crossing the Nanticoke property the seam has continued to grow—the Nanticoke property is about a mile and a half wide—the seam has grown to eleven feet. Crossing to Plymouth, about two miles further, the seam is up to forty feet. Going north opposite Wilkes-Barre, the seam is about eighteen feet. It reaches its maximum at Plymouth. A little north of Wilkes-Barre, about at Wyoming, the seam begins to split and, at the Westmoreland colliery, which is perhaps three to four miles east of Wilkes-Barre, there are three seams, practically unminable. As I remember, the largest is less than three feet. Going up to Pittston the middle split comes in minable again about six feet. The upper split ranges from one and a half to three feet and the bottom split of the three ranges again from one and a half to three feet. Going a little further north, the upper split disappears entirely. The middle split gets down as low as two feet, and the bottom splits to a mere leader.

Q. What do you mean by leader? A. A mere trace of coal, sufficient to lead a person driving on it, but not sufficient to be mined. So the Red Ash seam goes, coming in and out; but north of Wilkes-Barre it never amounts—it is no comparison in size or value with the seam south of Wilkes-Barre.

Q. A person then acquiring a coal tract and developing it, are there any indications of the surface of a variation such as you refer to? A. No.

Q. Consequently to what extent does that enter into the risks of the business, these variations? A. The variations to-day are pretty well known. Originally they entered very largely into the risks.

Q. Are the faults, the anticlinals, and the variations in the conditions of the seams known in properties to-day? A. Pretty well known now, yes; but they were not known when the properties were purchased. A good many properties were purchased in the midst of good coal, in which certain seams turned out to have split, or were much thinner, in some cases absolutely missing. A very curious instance of that I saw a couple of weeks ago in the Avondale colliery, where the huge Red Ash seam, which averages there between eighteen and nineteen feet, had in thirty feet become changed from a perfectly good coal seam to an unminable mixture of bone and slate, which mixture apparently extended over something like twenty acres on one small property of only about thirty-five.

Q. The total acreage being thirty-five? A. The total acreage of the property being about thirty-five. There were between nineteen and twenty acres of this mixture of rock, bone and slate.

Q. Any estimate then made by the owner, of the tonnage to be derived from that seam in that tract, because of his knowledge of its conditions when it disclosed this large seam, would be somewhat deceptive as to the outcome, would it not? A. Horribly so. The seam was actually mined all around in good shape. This was a local difficulty.

Q. Is that the only place on the Northern Field where they encounter such changes? A. Oh, no. I am simply giving this as typical of the changes in the Northern Field.

Q. To what extent do they exist broadly, through the Northern Field, perhaps not as to that vein, but in any

vein, I mean? A. Roughly, I should say from eight to ten per cent. of the coal measures were affected by faults and difficulties that will very greatly decrease, and in many cases absolutely prohibit, the mining of coal.

Q. The superficial acreage which is owned by a company of so-called coal lands have been asked for here by the Government and furnished by the companies and put into this record, is what indication of the tonnage to be derived from such superficial acreages? A. Absolutely none. You take the whole Lackawanna region; it was testified during the appeal from taxes in that region that there was an average of only eight feet of coal left over the entire Lackawanna region, whereas, in parts of Luzerne County, there is as much as sixty feet still remaining.

Q. At present prices, how much of the remaining coal, what per cent. of the remaining coal in the regions cannot be mined, in accordance with your opinion? A. I could not answer that.

Q. Can you not give us an approximation of that? A. No, I do not think I can. I do not know the amount remaining. At present prices all seams, certainly under two and a half and probably under two and three-quarters feet, are unminable without loss, and such seams may constitute fifteen or possibly twenty per cent. of the entire coal remaining; but that would be very largely a guess, on considerable knowledge of the region.

Q. Of the regions? A. Of the regions, yes; well, I do not know as much about the southern district, although it would be rather more in the Shamokin district than less. There are a great many small seams there. In the Cameron colliery, we mined or opened seventeen different seams.

Q. Now I want to ask you to take up the question of preparation and differences in the methods adopted in the recent years as compared with those in the older days and, before doing that, I would like to have you tell us, if you know, the difference in the preparation and in the cost

therefor of mining and preparing for market the bituminous coal as compared with anthracite. A. Bituminous coal has no preparation, properly so called. The coal as mined is frequently, and I think I can say usually, sold as run of mine, the entire mine car being dumped directly into the railroad car and sold. In some instances, especially with the coking coal, it is passed over stationary screens and two or three sizes made. There is very little picking, in most cases none and, as far as preparation is concerned, you can practically say that there is no preparation, as compared with anthracite coal.

Q. What is the difference between the two kinds of coal in the methods of mining them? A. A very large part of the bituminous coal at present is mined by what are known as machine methods; the seam being under-cut or side-sliced, to give a loose end to blast off the coal, requiring very much less powder and making a very, very much larger output per man. There are two types of under-cutting machines, both power-driven; one of them in the form of a punching chisel, which cuts a V groove beneath the coal, and another, an endless raking chain, which cuts a flat groove. That gives the miner a loose end to blow to, so that a relatively very small amount of powder will displace bituminous coal as compared with anthracite and the cost of mining bituminous coal is very much less than the cost of mining anthracite.

Q. Speaking of powder, to what extent has the use of powder increased in the last ten years in anthracite mining, and what effect has that increase, if it exists, had upon the wasting or, at any rate, upon the reduction of the sizes of the coal from prepared sizes, so-called, to sizes below? A. I do not know the percentage of increase in the use of powder, but I do know from observation that the miners are charging very much more heavily than they used to and that they are blowing a great deal more coal into finer sizes. Further, during my own experience, the black powder has been very largely supplemented, and in many cases replaced, by dynamite. That is due partly to gaseous

conditions and partly to thinner seams and larger amounts of rock to handle, so that, when I first came into the region, the dynamite amount was very small as compared to the black powder. My last personal knowledge of it was while I was chief engineer of coal companies for the Pennsylvania; the dynamite has very much exceeded the black powder in use at the collieries.

Q. The use of dynamite, as compared with black powder, has what effect upon the shattering of the coal? A. The dynamite shatters very much more than black powder. On the other hand, it is a safer explosive to use. There is less liability to fire gas with it and in many mines now the modern safety explosives are being used to the exclusion of both dynamite and black powder; in extremely gaseous mines, both in the anthracite and bituminous mines, there is quite a large amount of the so-called safety explosives, or non-flaming explosives used.

Q. The mining of the dirtier and thinner seams, as well as market requirements, has involved what in the matter of the methods of preparation in the anthracite region? A. It has remodeled the methods of preparation. The larger seams were not only larger, but cleaner. It seemed as though, in the arrangement of the coal measures, it was intended that we should mine the big seams and leave the little ones, because the big seams were, generally not merely larger, but very much less stratified with rock, and what strata of rock there were, were usually loose, that is, with partings above and below them, so that the rock would drop loose from the coal with a minimum amount of work. In the small seams, on the contrary, the rock and bone is, in very many cases, what we call burned together; that is, there is no parting, and the break will occur as readily through the coal as through the rock. This has involved loading a great deal more rock mixed with the coal than was necessary even ten years ago, and a very much greater amount than was necessary twenty years ago when I first became familiar with the region. The result has been to modify the breakers, both in increasing the screening capacities and

in increasing the picking capacities, and in the employment of a very large number of mechanical picking devices to remove the refuse from the coal, such as jigs, or spirals, or slate tables, and numbers of patented devices, so that a modern breaker will, instead of having one hundred or one hundred and fifty boys picking rock out of the coal, will have fifty or sixty jigs or spirals picking very much larger amounts of rock out of the coal. It has also involved a great many rolls to break down the pieces, where coal and refuse have stuck together, which, in the very large sizes, are separated by hand, but in the smaller sizes cannot be economically so separated and are crushed down to a smaller size and put through another preparation, with a view of recovering an amount of coal which will otherwise go to the refuse bank sticking to the piece of refuse.

Q. Which has done what in the way of adding to the waste? That is to say, the utilization of these thin, dirty, laminated veins, with this character of burned-in partings? A. There is a large waste in them, but I do not think very much larger, because the automatic picking is very much more accurate than the hand picking and the possibility, within reasonable limits of cost and within the possibility of obtaining pickers—as you can buy all the mechanical pickers you want and you cannot always buy all the live slate pickers you want, for they do not grow them fast enough ——

Q. It has done one good thing, it has reduced the amount of child labor in the collieries, has it not? A. Very largely indeed.

Q. Which, by-the-bye, is the most inexpensive labor to the operator, is it not? A. Yes; but I could not say that the mining of small seams has increased the waste. I think that, with the modern preparing devices, it has rather decreased than increased, as it is possible now to pick out a piece of egg coal, for instance, which with hand picking would have gone directly to the dump, send it to the rolls, recrush it and try it again in a smaller size by automatic

picking, and perhaps get a piece of nut and a piece of pea out of it, with a couple of small pieces of rock; so that the refuse from the breakers is, I think, cleaner than it was in the earlier methods of preparation.

By JUDGE CAMPBELL:

Q. The idea is that you win out for the market a little more coal by those processes? A. I think so.

By MAJOR WARREN:

Q. But, while you win out a little more coal, that increased winning is in what sizes? A. In the smaller sizes.

Q. That is, below prepared? A. Yes, but we win out a certain amount of coal which would otherwise have gone on the dump heap, and which is now on the dump heap being handled by the washeries, from the older operations.

Q. The investment in preparing machinery, or in machinery used in the preparation, has increased what in the last ten years? A. Two or three hundred per cent. The cost of replacing the breaker boys has been very great. The mechanical picking devices are expensive and very expensive to maintain. The jigs, which are the most efficient, are unpatented, but extremely costly to maintain. The spirals and slate tables are patented, and the cost is very heavy; but, while they are costly to maintain, they are not nearly as costly as the jigs.

Q. Taking into account the saving of the wages of the labor replaced by the mechanical contrivances on the one hand, and the cost of the mechanical contrivances on the other, the net result is an increase in the preparation cost to what extent? A. I could not give the percentage. The labor cost of preparation varies from about even to perhaps about twenty per cent. increase during the past ten years, but I would have no means of averaging in the additional cost of machinery. With the additional cost of machinery, however, the labor cost has not decreased, and in many instances, has increased.

Q. Notwithstanding the introduction of mechanical

contrivances? A. Notwithstanding the introduction of mechanical contrivances.

Q. It is certain, then, that the introduction of the mechanical contrivances has not resulted in an economy, although it has replaced labor cost to some extent? A. Oh, yes, it has resulted in a very great economy, because, with the coal that we have now to pick, it would be impossible to pick the coal we have now with hand labor.

Q. But you do not quite understand my question. As compared with ten years ago, you have told us that they now have introduced these various mechanical contrivances, jigs, spirals, and so forth, and you have said that has done away with the child labor that used to do the picking? A. To a considerable extent.

Q. What I want to get the fact about, whichever way it is, is this; has this introduction of the machinery, thus relieving you from some child labor, has it relieved you enough so that the net cost is about as it was ten years ago for preparation, or has it added to it? A. The net cost for preparation is a little higher than it was ten years ago.

Q. Do you include in that answer the cost of buying this machinery? A. I do not. That is what I was going on to say.

Q. Please include that then. A. I cannot.

Q. Can you give me any figures as to what these things cost that they now put in breakers, these jigs? A. Yes, they have increased the cost of a breaker from $100,000 to $150,000 or $200,000; but it will be an almost impossible task to put that into percentage.

Q. What about pumping and ventilation in the last ten years as to amount and as to the increased cost, if any? A. The pumping of a colliery, outside of accidents, such as breakage of the strata into water bearing strata, or into the river, would naturally increase approximately with the extent of the workings. The ventilation would increase, not directly as the extent of the workings, but as some function of the extent. It is plain to see that

there is no reason for more infiltration of water at one point than another, barring accidents; but, with ventilation, the gases gradually exhaust themselves in the older workings and a relatively less amount of air is required to properly ventilate old workings than is required in new ones. Therefore, the ventilation will not increase directly as the workings extend, while the pumping would naturally do so. The labor cost of both ventilation and pumping has increased in proportion as these have increased, as well as in proportion to the increased cost of labor, which I have previously explained.

Q. The cost of pumping has increased, on an average, what per cent. would you say in the last ten years, in the Northern Region? A. The cost of pumping, on the average of a number of collieries in Luzerne County, increased sixty-four per cent. during the past ten years. On one colliery I know of, it increased seven hundred and sixty-five per cent. That was due to the workings passing under the Susquehanna River and getting a very large and permanent increase of water from that source. The total pumping of District No. 2 of the D., L. & W., which I was able to obtain for the year 1908, was 2,998,071,200 gallons, amounting to above five tons of water, pumped approximately five hundred feet vertically, for each ton of coal hoisted. To go back to one of the other regions, the Lykens Valley Coal Company has been noted as possibly the wettest colliery, possibly the record wet colliery. We pumped there, in a number of years, forty tons of water for every ton of coal hoisted, and that was largely pumped from eighteen hundred feet vertically. It was pumped by slopes, but there was eighteen hundred feet vertically.

Q. District No. 2 of the Lackawanna; where is that? A. That comprises the Hyde Park, Sloan ——

Q. In other words, certain collieries in the vicinity of Scranton, in Lackawanna County? A. Yes. I could give you the names of the collieries.

Q. Ventilation has increased what? A. Ventilation in

the Wyoming Region has increased about thirty-four and one-half per cent. in cost.

Q. What capital expenditure is required in the mines and utilized in the mines in the last ten years for the more modern and economical pumping machinery? A. I could not give you the amount nor the cost per ton, but the larger companies have, during the last ten years, replaced a very large number of their old, uneconomical pumps with higher grade pumps. In the Lykens Valley colliery alone, which was done under my supervision, we put in eight compound condensing twelve-inch plunger pumps, which cost in the vicinity of $10,000 apiece, installed, and to replace the entire pumping plant of the colliery we spent about $80,000 or more, on the pumping plant. That was done since 1902. I think the estimate of $10,000 apiece installed is low, rather than high. The pumps themselves, as I remember, cost about $7500, and I have never had access to the figures for the pump rooms, but an estimate of $2500 for each pumping room would be low, rather than high.

Q. How many mines in the Northern Field, with which you are familiar, are there that do not have to have any pumping? A. None.

Q. Therefore universally they have that as an item of expense to some extent? A. There may be two or three very small individual operations that have no pumping, but I am not personally familiar with any mine which has no pumping.

Q. Now the item of transportation, and I mean by that transportation in the inside workings, as a factor entering into the mining cost of coal; I want to ask you something about that. To what extent, if any, has that increased in the last ten years? A. The average of a large number of collieries in the whole Northern Field is forty per cent. increase. The largest increase that has come under my knowledge is one hundred and four per cent., in one colliery, and that despite the fact that very great economies have been made by putting in electric

and air haulage, replacing mule haulage. The saving in putting in air haulage in the Glenlyon colliery, which was put in under my supervision, was sufficient to pay for the entire installation in about a year and a half; but, even with that, the extent of the workings is increasing so rapidly that the total cost of inside haulage has increased on an average about forty per cent. in the past ten years. It probably is a fact that it would have been impossible to handle some of the long runs with mules, and mine seams anywhere near the size that are now mined.

Q. Do they extend into the chambers, this electric haulage and air haulage? A. Only rarely.

Q. How do they get the cars from the face of the chambers down to the main gangways? A. In some instances they are run down by gravity and others collected by mules.

Q. How do they get them up, if they are run down by gravity? A. They are pulled up by mules almost invariably. In some few instances the electric haulages are provided with reels, by which a special cable is connected to the power cable in the gangway, and the motor goes off, paying off this cable and re-reeling it as it returns; but that is more used for taking branch gangways or counters than for going into the actual chambers. To a small extent, I believe electric gathering motors are going into the coal chambers, although it has not come within my personal observation.

Q. Are these electric locomotives expensive? A. They cost about $2800 each.

Q. How many do they have in a coal operation? A. It varies from one to—I think there are fifteen inside some collieries.

Q. How about the maintenance of them and the repairs? A. The maintenance and repairs are not very high.

Q. How about the labor cost of those? Who run them? Is it skilled labor? A. Yes, it is a better class of labor than mule driver. I would call it semi-skilled labor. Of course, a large electric installation, to run electric

motors, requires at least one highly skilled man to attend to the electric end.

Q. Where is the electric end of this electric haulage? A. Each colliery will have to put up an electric plant, or buy their power, which they rarely do. In some few instances, the Lackawanna in two instances and I believe the Delaware and Hudson in one, have put up central power plants to serve a group of collieries.

Q. These plants at the colliery operations, or where they use them in group collieries, in the matter of service, are they expensive or otherwise? A. The central power plants are very expensive, but, of course, more economical in operation. The individual power plants are moderate in cost. The engine and generator costs about, I think, forty dollars a kilowatt.

Q. What has this necessitated in the matter of the steam plants connected with the breakers, in the way of enlargement or otherwise? A. The steam plants have been quite materially enlarged and further, during my experience in the region, there has been a practically complete reorganization of the steam generating practice. In 1886, when I came to the region there were a few locomotive and return tubular boilers, and probably eighty-five or ninety per cent. of the total steam was generated in plain cylinder boilers. To-day it is very nearly reversed, and I would judge eighty or eighty-five per cent. of all the steam in the region is generated in horizontal high grade boilers, and probably not over ten or fifteen per cent. in the old cylinders. That means an economy; the difference is an economy of using practically half the coal for a given amount of steam under the newer boilers, as compared with the cylinders.

Q. But what is the difference in the cost of the two? A. There is not a very great deal of difference in the cost installed. The boilers cost very much more, but they are so very much more compact that the houses and steam connections cost less, and the additional cost for putting up a high grade plant is probably not over twenty-five per cent.

greater than putting up a cylinder plant. In many cases, it is no greater.

Q. Are not the modern plants, such as are used within the last ten years, very much more extensive than the ones that were in use? A. Certainly.

Q. That is, more boilers, I mean, are used? A. No, you do not mean more boilers, you mean more horse-power.

Q. Yes, that is just what I mean. A. Yes, a great deal.

Q. Boilers cost more in proportion to the horse-power, do they not? A. Certainly. My statement was not clear. I should say the cost per horse-power of a modern plant I do not think exceeds more than twenty-five per cent. the cost per horse-power of a plain cylinder plant, completely installed.

Q. What is the difference in the number of horse-power, that is what I want to get it? A. That is a constant increase at every colliery. To give an example, perhaps, at Williamstown colliery in 1886 I think there were forty cylinder boilers, good for about fifty horse-power apiece, or two thousand horse-power. To-day at the same colliery, there are eighty-six hundred horse-power of high grade boilers.

Q. To what extent has the use of fuel at the collieries increased in the last ten years? A. It has increased materially. I have not, except in one instance, any definite figures for the amount, but, as the pumping, ventilation and haulage, and the uses for steam increase, the fuel is bound to increase, and it has. In one instance, in the Seneca colliery, the fuel has increased from six and eight-tenths per cent. in 1902 to thirteen and three-tenths in 1905. Those were figures that I obtained several years ago, in connection with the study of the fuel problem at that colliery, and I have no others to give.

Q. Can you give me the ranges of the per cent. of the total production of collieries utilized for steam purposes? A. That was the range at Seneca.

Q. Can you give me one that would be a fair average for the region? A. There is a general assumption that

seven per cent. of the total output of the region is used for steam purposes. I think that was probably correct, seven or eight years ago, but that it has now increased materially. It is nothing more than a personal opinion, however, to say that it would figure probably at least ten per cent. to-day.

Q. Would you say that the operating costs, the executive costs and the selling expenses—on which the cost of coal is usually stated, is it not? A. No.

Q. Would you say that those represented what is usually embraced in the cost of handling anthracite coal? A. No, the figures that are available to me at least, are based on colliery expenses. The executive expense and the selling cost and such items are not included in the figures that have been available to me.

Q. I grant you that, but just the same you recognize that they are an item of cost? A. Certainly.

Q. That was my question; that, among the items of cost for mining and preparing anthracite coal for the ultimate consumer, must be figured, not only those which you have now covered, but the executive costs, that is general salaries and things of that sort, and selling expenses, if there are any, must there not? A. Yes; also storage expenses; the depreciation of lands and depreciation of machinery and breakers; sinking fund, to cover exhaustion of lands; and further, I think there should probably be included a special sinking fund to cover accidents and catastrophies.

Q. How about insurance? A. Insurance is ordinarily covered in the colliery cost.

Q. How about taxes? A. That is ordinarily covered in the colliery cost, as is royalty.

Q. Speaking of accidents and catastrophes, is the anthracite mining business more than usually subject to such? A. Yes; it is distinctively a dangerous business. The mines are not merely subject to accidents and catastrophes, but they are really to be expected in the course of human events.

Q. They cannot be prevented, in other words? A. We spend very large amounts of money in attempting to prevent accidents and catastrophes.

Q. But do not succeed? A. But there is not a company, and hardly a colliery, during my twenty-five years' experience in the field that has not had more or less serious accidents, many of which might have been considered actual catastrophes—fires, floods, explosions, squeezes and caves are of common and ordinary occurrence, as of natural course in the business of mining coal.

Q. Are collieries sometimes absolutely lost, due to such accidents? A. There have been quite a number of collieries actually lost. The West Nanticoke colliery of the Susquehanna Coal Company was abandoned some fifteen years ago on account of a squeeze which brought in the Susquehanna River to such an extent that pumping at that time was impracticable, financially impracticable. The Summit Hill colliery of the Lehigh Coal and Navigation Company was fired, I think in 1848, and is still burning. The Twin colliery, now the Seneca colliery, lost the great bulk of its workings from a squeeze in which a number of men were buried, and the Nanticoke colliery lost nearly one hundred acres of its bottom seams by a large squeeze. The Cameron colliery was flooded out for two years, by reason of a mine fire. I can go on indefinitely in that.

Q. And you can come up into the Lackawanna Valley for a moment and recall, can you not, within a year the loss of many acres of coal in one of the Lackawanna operations, in Hyde Park, due to a squeeze? A. Yes. There has been a very serious squeeze in the Hyde Park colliery.

Q. These accidents of various kinds and catastrophes involve what cost? That is, it ranges between what figures? A. It ranges from a fire that costs a few hundred dollars to put out and repair, to a catastrophe that costs ——

Q. The colliery? A. Costs the colliery, costs anywhere from a quarter of a million to a million dollars. The cave-in at Nanticoke in 1900 cost over $200,000 to repair. The fire in the Cameron colliery about 1891 or 1892 cost nearly half a million, before it was put out, and

the colliery put in operation again. The Lehigh Coal and Navigation fire that I referred to is reputed to have cost over a million, and it is not out, to say nothing of the loss of coal.

Q. Do you know when the first mechanical storage plants were built? A. Yes. The first mechanical storage plant that was built within my knowledge, was built for the Pennsylvania Railroad at South Amboy, in 1889.

Q. Before the construction of these storage plants, how were these sizes that Mr. Connell referred to as the operators being long in, that is to say, the sizes that could not for the time being be marketed, taken care of? A. They were largely taken care of by stopping the mines. When they did not have sale for any particular size, a certain amount of coal was stored on the wharves at seaboard and in piles around the mines. This involved a percentage amounting to at least ten per cent. and, as near as I have been able to get at it, the average cost of handling was fully twenty-five cents a ton or more, not including the loss of coal in breakage.

Q. Then, up to the time of the invention and installation of these modern mechanical handling plants, the working time at all collieries was necessarily broken? A. I believe that to be the case. Within my own experience, that was the case.

Q. What is the function of a modern storage plant? A. The function of a modern storage plant is to act as a balance wheel to a group of collieries, or to a direction of transportation. Its operation is to put into temporary storage the sizes on which that group of collieries is long at the moment and to permit the collieries to continue in regular operation and the market to absorb the sizes which, for the time being, it is willing to take.

Q. I assume it enables the person having such storage plant to withdraw the coal thus stored and put it into the hands of the consumer when the demand comes? A. That is the purpose of the plant.

Q. Do you know, among the peculiarities of the mar-

ket, the fact that there are certain sizes that are in greater demand at certain times of the year than others, and indeed certain sizes that are without any demand for them at certain seasons? A. Yes. That is the normal condition of the anthracite business, as I could see it from the operating end.

Q. What storage plants do you know the existence of, where are they located, what familiarity have you with them, and what is their ton capacity? A. Do you want me to give an entire list?

Q. Yes, sir. A. The Reading has a Dodge plant at Abrams, containing eight piles, each with a capacity of 60,000 tons, or 480,000 tons total, which was built in 1905. I am familiar with the drawings of this plant, but have never seen it. They have a Dodge plant at Port Richmond, installed in 1905, which has a capacity of 180,000 tons. I have seen the plant, but am not able at the moment to remember the details of the piles. Then a Side Hill plant at Mahanoy City, which has a capacity of 150,000 tons, about. They also have a side hill plant at Landingville, which, when I examined it in 1899 or 1900, had a capacity of 300,000 tons. That plant has since been enlarged, but I do not know to what extent. The Lehigh Valley Coal Company have a Dodge plant at South Plainville, with a capacity of 310,000 tons, built in 1891. I have examined the plant thoroughly. A plant at West Superior, Wisconsin, a special type of covered storage, built by the Dodge Company in 1894, capacity 100,000. I have examined that. A plant at Ransom, known as a traveling trimmer plant, which I built in 1906, and has a capacity of 400,000. A plant at Black Creek, a side hill and cantilever trimmer type, with concrete floor and hydraulic discharge, with a capacity of 225,000 tons, which I built for them in 1906. A plant at Wende, New York, of a special type of central trimmer and tunnel conveyor recovery, with a capacity of 100,000 tons, built in 1906, which I saw several times during the course of construction and was consulted on the drawings. A bin and tunnel plant at Perth Amboy, with

a capacity of 200,000 tons. I have examined the plant; I do not know the date of erection. A bin and tunnel plant near Buffalo, with a capacity of 100,000, which is of old construction. I have also examined that. A special plant at South Chicago, similar in general to the Wende plant, built in 1907, with a capacity of 135,000 tons. I have seen the drawings of this and saw the plant in course of construction, and was also consulted in regard to its design. A plant at Milwaukee, Wisconsin, similar in general to the South Chicago plant, built in 1907, with a capacity of 75,000 tons. The Pennsylvania Railroad and Susquehanna Coal Company have a Dodge plant at South Amboy, which was built in two sections, 100,000 tons in 1889 and 90,000 tons in 1902. I have seen both plants and was engineer of the Susquehanna Coal Company during their erection. They were not, however, erected under my personal charge. A plant at McClellan, erected in three sections, 210,000 tons in 1901 by myself, 170,000 tons in 1905, and 100,000 tons in 1906, both on my plans and under my general supervision as consulting engineer. A plant at Old Bridge, of 210,000 tons capacity, built in 1907, about which I was consulted in regard to the design and have seen the drawings, but have not seen the plant. The Central Railroad of New Jersey and Lehigh and Wilkes-Barre Coal Company have piles at Hampton Junction, a Dodge plant, with a capacity of 180,000 tons, erected in 1890, and an extension to the same of 300,000 tons capacity erected in 1905, both of which I have seen. Also a plant at Salem, Massachusetts, with a capacity of 80,000 tons, erected in 1890, which I have not seen. The Erie has a plant at Buffalo, with a capacity of 105,000 tons, erected in 1896, which I have fully examined. Two plants, or one plant with an extension, at Rochelle Park, 150,000 tons capacity, erected in 1901, and 50,000 tons in 1904. A plant at Hammond, Indiana, of a special type, covered, with capacity of 60,000 tons, erected in 1900, and I believe a side hill plant near Scranton, with a capacity of about 120,000 tons. Except the Buffalo plants, I am not personally familiar with those.

I believe the Erie also has a plant at Hawley, of which I have no record. The Pennsylvania Coal Company had a plant at Newburgh, with a capacity of 80,000 tons, erected in 1897. This was a combination of side hill and Dodge type plant. I am familiar with the drawings but have not seen the plant. The Lackawanna has a plant at Scranton, Dodge type, built in 1904, capacity 100,000 tons, two 50,000 ton piles, with which I am perfectly familiar. Also a plant at Dover, New Jersey, of the same capacity, built in 1906, which I have never seen. The New York, Ontario and Western has two plants at Middletown, one of 120,000 tons capacity, of the Dodge type, built in 1901, and one of 60,000 tons of the same type, built in 1907. The Lehigh Coal and Navigation Company have a Dodge plant of 240,000 tons capacity, built in 1908, at Hauto, on which I was employed by the Dodge Company as consulting engineer in the design, although I have not seen the plant since it was completed. The Delaware and Hudson has a plant at Carbondale of the Dodge type, erected in 1899, of 150,000 tons capacity, which I have seen, and one at Delanson, New York, of 120,000 tons capacity, erected in 1889, my notes say, but I think those last two figures are reversed. There is also a plant erected by Coxe Brothers, at Roan, Pennsylvania, of the traveling bridge type, which had a capacity of about 180,000 tons and was erected about 1900. That has since been enlarged, but I do not know to what extent. I have also erected several plants for large dealers, which are more yard plants and handling plants than storage plants, notably plants for Boyd, Stickney & Co., at Chicago, which had a capacity of 30,000 tons and a plant for the Staples Company at Fall River, which had a capacity of handling about 1500 tons a day, and a storage capacity, as I remember, of about 25,000 tons.

Q. The makers of these plants, do you mean to refer to them when you speak of Dodge? A. Yes.

Q. The builders, in other words? A. Yes, they are built under the Dodge patents.

Q. You have not given the aggregate capacity of these several plants, have you? A. I have not given it.

Q. So that we could ascertain what per cent. of the total production of the companies they carry? A. The Reading plants, as I know them, although the Landingville has been enlarged, had a capacity of 1,110,000 tons, or about eight and eight-tenths per cent. of their 1908 production. The Lehigh Valley a capacity—not including the Roan plant—a capacity of 1,645,000 tons, or about fifteen and three-tenths per cent. of their production. The Pennsylvania Railroad and Susquehanna Coal Company, 880,000 tons, or fourteen and six-tenths per cent. of their production. The Central Railroad of New Jersey, 560,000 tons, or nine and four-tenths per cent. The Erie and Pennsylvania Coal Company together, 565,000 tons, or seven and six-tenths per cent. The Lackawanna 200,000 tons, or two per cent. The New York, Ontario and Western, 180,000 tons, or six and four-tenths per cent. The Lehigh Coal and Navigation Company, 240,000 tons; their output was not available when I made this out. The Delaware and Hudson, 270,000 tons, or four and two-tenths per cent. of their production.

Q. These storage plants have cost on an average about what per ton capacity? A. I would say one dollar and fifty cents, from personal knowledge, as a general average. The range of price has been from a little over a dollar to two dollars and twenty-five cents for the mechanical handling plants. There should be added to the capacities of these mechanical plants, the capacities of the various storages which are not mechanically handled, on piers and in yards, on which I have no data.

Q. Do you know of the prices of other commodities as to whether they have advanced in the last ten years? A. From general knowledge, I know that they have advanced materially.

Q. Can you state, in view of the increase of labor, material and the necessities of life in the last ten years, whether coal has increased in a greater ratio in the price which it has secured? A. I think it has increased, if anything, in a less ratio.

Q. I read from the bottom of page 452, from the "Award of the Strike Commission," a single sentence: "Owing to its (speaking of the coal beds) owing to its gradual exhaustion and the consequent greater expense of mining poor veins and the increased labor cost due to higher wages, the tendency of the price of anthracite coal is probably upward." Has that been borne out by the development since that announcement was made by the Strike Commission in March, 1903? A. It has been, to the best of my knowledge. I know that the cost of production has been upward. I am only familiar with the cost of selling by incidental notes in the trade papers.

Q. In your opinion would it be better for the country if the prices were higher, because then veins which you have already told us could not now be mined, might be mined and thus more of the coal gotten to market? A. There is no question that, with a higher price, thinner veins could and would be mined, as there is every incentive to mine to the limit of financial possibility and to conserve the largest possible amount of coal for the future.

Q. In your judgment, then, it would be advantageous? A. It would.

Q. To what then, do you attribute the increased price of coal to-day over the prices prevalent say ten years ago? A. To the increased cost of production.

Q. Economic conditions? A. To the economic conditions and the increased cost of production; also to the fact that the capacities of the present collieries have been practically reached and that, in order to maintain their present perfection, it is necessary to mine very much thinner and more costly seams.

(Counsel for the Government objects to this whole examination, upon the ground that the matter adduced is utterly immaterial and sheds no light whatsoever on any issue involved in this case.)

Cross examination.

By MR. MCREYNOLDS:

Q. Can you tell us what was the labor cost per ton for mining anthracite coal in the three anthracite regions, say in the year 1898 or thereabouts? A. The general average in 1898 would be in the vicinity of one dollar a ton.

Q. In 1900, what was that general average? A. I cannot follow you by years, because I have only looked up the two ends. The jump in 1900 would probably be about ten per cent., but I could not follow it in detail.

Q. There was an advance in 1900 of ten per cent.? A. There was an advance in 1900 of ten per cent. in labor cost, and I judge it would make about that difference in the total cost.

Q. I am confining this part of the examination to labor cost. A. I know you are. I say in the labor cost, there was an advance of ten per cent. in the wages, and I judge it would make an advance of ten or eleven per cent. in labor cost.

Q. So, just prior to the advance of 1900, the total labor cost, taking an average in the Northern Region, you think was about one dollar per ton? A. I think so. That would be my judgment.

Q. Subsequent to the advance in 1900 it was about one dollar and ten cents per ton? A. I would judge so, although I have no figures to back it up.

Q. So an advance of ten per cent. to the laborers made an increase of about ten cents per ton? A. Ten or eleven cents a ton, I would judge.

Q. Since 1900 do you think the price of labor has further increased? A. I know it has. There was another increase in 1902.

Q. Of how much? A. There was ten per cent., and a sliding scale which averages about four per cent.

Q. So, since 1900 then, the price of labor has increased about fourteen per cent.? A. Yes.

Q. That would add, both of these things together,

about twenty-four cents to the price? A. No, it has added more than that, because of the necessity of mining thin seams, which has come in between, in the Northern Field, in between 1898 and 1908.

Q. That advance would have occurred without any increase in the miners' wages, would it not? A. It would, to a certain extent, yes.

Q. What I am trying to get at is, these two advances of ten per cent. have added per ton, themselves, about twenty-four cents, have they not? A. They have added probably a little more than that, because of the decrease in the amount of work done by the individual miner.

Q. How much has the price of coal increased since the Fall of 1900? A. I do not know. That has not been my end of it.

Q. What is the present average total labor cost per ton for producing anthracite coal in the Lackawanna region? A. In the Northern Region, the Northern Coal Field, which is the Lackawanna and Luzerne region, I would say it would average about one dollar and fifty cents.

HON. W. L. CONNELL, having been duly sworn, was examined as follows:—

By MR. WARREN:

Q. You reside in the city of Scranton, and in the State of Pennsylvania? A. Yes, sir.

Q. You have been Mayor of Scranton, have you not? A. Yes, sir.

Q. You are now associated with the mining of anthracite coal are you not? A. I am; yes, sir.

Q. With what different operations are you associated? A. I am associated with the Green Ridge Coal Company, North End Coal Company, Enterprise Coal Company, and Connell Anthracite Mining Company.

Q. Please locate these several operations. A. The Green Ridge Coal Company is situated in the Borough of Dunmore.

Q. County of Lackawanna? A. Yes, sir. The North

End Coal Company is situated in the city of Scranton, Lackawanna County. The Enterprise Coal Company is situated at Excelsior, Northumberland County.

Q. Is that in what is known as the Shamokin District? A. Shamokin District, yes, sir. The Anthracite Mining Company is located at Bernice, Sullivan County.

Q. The last named operation mines what kind of coal? A. Free burning anthracite.

Q. You do not distinguish the coal which you mine and prepare and sell from the Bernice property, from that which you thus mine, prepare, and sell from the other operations with which you are associated? A. I do not.

Q. You know that it is sometimes called, however, a semi-bituminous—what is the name? A. Semi-anthracite. I never agreed there was any such coal as that existed.

Q. Are you the active manager of these several operations? A. I am, yes, sir.

Q. Will you tell me what year it was you entered into the anthracite coal industry as an operator? A. About nineteen years or twenty years ago.

Q. Have you been continuously interested since? A. I have; yes, sir.

Q. You are a member of the Conciliation Board, so-called, which was established by the Award of the Anthracite Coal Strike Commission, are you not? A. I am, yes, sir.

Q. Representing what class of interested persons? A. I represent the district known as No. 1, the large interests and individual interests.

Q. That is to say, you reside in District No. 1? A. And represent District No. 1.

Q. In the geographical selection of the members of the board you were the one chosen from that territory A. Yes, sir.

Q. The other members of the board, who are they? A. Mr. S. D. Warriner, from District No. 7, Mr. W. J. Richards, of District No. 9.

Q Mr. Richards resides in Pottsville, and Mr. Warriner in Wilkes-Barre? A. Yes, sir.

Q. And the other members of the board are representatives of the employees? A. Yes, sir.

Q. That is to say there are three representing the operators, and three representing the employees? A. Yes, sir.

Q. And that board, thus constituted, has been in existence since the award of the Strike Commission, has it not? A. Yes, sir.

Q. You are not associated in any way, shape, form, or manner, with any of the railroads, that is to say the Delaware and Hudson, or the Delaware, Lackawanna and Western, or with any of the railway coal companies, such as for instance the Lehigh Valley Coal Company, Lehigh and Wilkes-Barre Coal Company, Philadelphia Coal and Iron Company, are you? A. No, sir.

Q. So that you are solely and exclusively interested in the anthracite business as a miner, preparer, shipper, and seller of anthracite coal? A. Yes, sir.

Q. Associated with what are commonly called individual operators? A. Yes, sir.

Q. How many years ago did you become interested in what you call the Enterprise Colliery, in the Shamokin region? A. I became interested in the Enterprise Colliery in August, 1891.

Q. How did you first dispose of your product manufactured at that operation? A. We sold it in the open market.

Q. Can you recall for what length of time you sold it in that way? A. I think about three or four years, possibly three and one-half years.

Q. What change, if any, did you make, in your methods of disposing of your coal after that experience? A. I succeeded in persuading the Philadelphia and Reading Coal and Iron Company to take our coal on the sixty per cent. basis.

Q. You say you succeeded in persuading the Philadelphia and Reading Coal and Iron Company to do that? A. Yes, sir.

Q. Did you have any difficulty in getting them to agree to it? A. Considerable, yes, sir.

Q. Why did you desire to get the Philadelphia Coal and Iron Company to take your product under the sixty per cent. contract, so-called, rather than dispose of it in the open market yourself? A. That I might be able to make a safer profit for my company.

Q. Give us a little glimpse into your experience trying to dispose of the product of that colliery on your own hook, as the expression is. A. What do you want to know?

Q. What difficulty did you have, for instance in storing the coal, if you had an occasion to, and if you did, tell us why you had occasion to? A. We had the same difficulty that every individual operator had in those things of taking care of the long sizes, the sizes that were not marketable at that particular time.

Q. Tell us what you mean by sizes that were not marketable at that particular time. A. For instance, if the market demands stove coal—that is one of the sizes, and we have no orders for Chestnut. We are long on Chestnut coal.

Q. When you say you are long on Chestnut coal, that expression means what? A. We have an excess product of that particular size.

Q. That you cannot dispose of? A. That we cannot dispose of without we dispose of it at a loss. Consequently we were compelled to store that particular size.

Q. I call your attention to an extract from the report of the Anthracite Coal Strike Commission. I read from the Bulletin of the Department of Labor, No. 46, May, 1903, from the Government publication, at the top of page 452, this sentence: "The demand for the different sizes is not uniform throughout the year, but all sizes must be produced if any size is wanted; consequently storage facilities for sizes not needed immediately must be provided, causing another investment and source of expense in storing and taking up again." Is that state-

ment in accord with your personal experience as an operator prior to 1902? A. Yes, sir, it is.

Q. Is that what you have in mind when you speak of the inability to dispose of certain sizes at certain times? A. Yes, sir.

Q. What experiences, if any, did you encounter in the matter of collection of moneys due for coal sold? A. We had the same experience in that as all business men have in the collection of accounts.

Q. In other words you had a certain per cent. which you had difficulty in getting, had you? A. Yes, sir. It necessitated our carrying a large amount of uncollected accounts, making our business generally unsatisfactory.

Q. You negotiated the sixty per cent. contract, so-called, with the Philadelphia and Reading Coal and Iron Company, with what official of that company? A. Mr. Henderson.

Q. You had some difficulty in persuading him to agree, had you? A. Considerable.

Q. You cannot recall just the year that you entered into that contract? A. I think it was in 1904. I think we were selling our coal between three and four years—sometime during the year 1904. I have the date in my office.

Q. You mean 1894? A. Yes, sir.

Q. Tell us how you dispose of the product from each one of your several operations, and how you have disposed of it say for the last six years. A. The Enterprise Coal Company, we dispose of it to the Philadelphia and Reading Coal and Iron Company.

Q. Under the terms of what sort of a contract? A. Sixty-five per cent.

Q. So-called sixty-five per cent. contract? A. Yes, sir.

Q. Take the North End. A. The North End Coal Company, we dispose to the Delaware, Lackawanna and Western Railroad Company, and a small amount of that tonnage to Dixon & Eddy. The Green Ridge Coal Company, we dispose of our product to the Hillside Coal and Iron Company. The product of the Bernice, or the Connell Anthracite Mining Company, I dispose of individually.

Q. In what direction do you ship your product from the Bernice operation? A. We ship it North.

Q. You mean by that, up in New York State and into Canada? A. Through New York State and Canada and the West.

Q. Does that coal enter into competition with the other, adopting your theory of it, the other anthracite coals? A. It does; yes, sir.

Q. Can you give me an instance of your own competition for the sale of some of your product, in the city of Buffalo, for instance? A. Competition with the other?

Q. Yes, sir. A. Yes, sir, we received the contract from the city of Buffalo last week, in competition with the other companies.

Q. Do you know what other companies? A. I suppose all of them. They are there.

Q. What amount of tonnage was involved in that? A. About 15,000 tons.

Q. That operation has what production? A. Last year we produced two hundred and thirty odd thousand tons. It is a developing proposition.

Q. In other words, it is not yet fully developed to its maximum capacity, or estimated maximum capacity? A. Yes, sir.

Q. Will you tell us somewhat in detail why you prefer, if you do, to sell your product to the railway coal companies other than the Bernice operation? A. It is not my fault I am not selling the Bernice proposition.

Q. Is it not? A. No, sir.

Q. Did you try to get any of the railway coal companies to handle it? A. The Lehigh Valley Railroad Company refused to take our product on the sixty-five per cent. basis.

Q. You tried to induce them to make a contract with you for the disposition of your entire product? A. Yes, sir.

Q. Will you tell us and give me your reasons somewhat in detail why you prefer to sell your products to the railway

coal companies under the sixty-five per cent. contracts, which tie up the production for the life of the operation? A. Simply as a matter of business.

Q. Go and tell me why it is a matter of business. A. I think that answer covers pretty near the whole question. A matter of economy. A matter of greater profit to our operations, the elimination of the possibility of a larger amount of accounts that would be questionable, the dealings with a solvent concern at all times. That, in itself, is sufficient to attract me to desire to sell that coal under the sixty-five per cent. contract.

Q. How about the continuity of the running, under a sixty-five per cent. contract? A. My experience is that we run quite as well.

Q. During the past six years? In other words, since the Award of the Strike Commission in March, I think it was, in 1903, speaking generally, how have your operations run so far as their colliery capacity is concerned? A. Fairly well. I might further illustrate your question to show our desire of the sixty-five per cent. contracts in reference to our Bernice proposition. Our coal account to-day stands $190,000 or $200,000, which does not exist in any other operation.

Q. What do you mean by your coal account? A. Our storage of our long sizes.

Q. In other words, you have in hand nearly $200,000 worth of coal tied up? A. Tied up in our coal and in our coal account.

Q. Under your sixty-five per cent. contract you are paid when, for the coal delivered? A. We are paid a dollar a ton on the 12th, and the balance upon the 20th of each and every month.

Q. For the coal delivered the previous month? A. Yes, sir.

Q. Absolutely, always and invariably? A. Absolutely, always and invariably; yes, sir.

Q. You deliver your coal where, under the sixty-five per cent. contract? A. In the Lackawanna region, in fact in all of the regions, at the breaker.

Q. What, if anything, have you to do with the ultimate destination of that product? A. Nothing.

Q. What, if anything, have you to do with the matter of freight on any coal? A. Nothing.

Q. Those contracts, as far as the companies are concerned with which you are associated, and so far as any others with which you might have knowledge, are they, or are they not mere devices to stifle competition and create a monopoly in the sale of anthracite coal? A. As far as I am concerned, no, sir.

Q. So far as you are concerned, what are they, honest contracts? A. They are honest contracts, and they have been honestly committed, and honestly executed.

Q. How about the living up to them? A. We live up to them, and so do they.

Q. You were in fairly close touch with the other independent, so-called, operators prior to the making of the so-called sixty-five per cent. contracts, were you not? A. Fairly so, yes, sir.

Q. And in conference with those gentlemen? A. Yes, sir.

Q. And recall the constitution of a committee consisting of Hon. William Connell, Mr. Kemmerer, and Dr. Howe, to negotiate with the presidents of the coal companies, the larger coal companies, with reference to that subject, you recall that, do you not? A. Yes, sir.

Q. Mr. William Connell was related in what way to you? A. He was an uncle.

Q. He died within a matter of a few weeks since? A. Yes, sir.

Q. At a very old age? A. Yes, sir.

Q. Calling your attention, among other things, to the clause in those contracts which ties up the product for the life of the colliery, you personally say, as I understand you, that you were favorable to the incorporation of that clause? A. I was one of the affirmative votes on that clause.

Q. Was there or not a division of sentiment among the

independents, so far as you gathered it from conferences with them, as to that? A. In the early negotiations of that contract, yes, sir, there was some division.

Q. How about in the latter? A. I have not heard anything about it latterly. It seems to be entirely satisfactory.

Q. What proportion of them do you say you met and came in touch with? A. Do you mean at the time of the negotiation of the contract?

Q. Yes, sir, what proportion of them were for, that is favorable to the tying up of the product for the life of the colliery, and what proportion would have preferred to have had it for a term of years, a year or years? A. At the meeting of the independent operators the final action was practically unanimous, as I remember it.

Q. In favor of what? A. In favor of the contract as it now stands. That meeting was held in Mr. C. D. Simpson's office in the Scranton Board of Trade Building in Scranton.

Q. Was the matter a subject of discussion pro and con? A. The entire contract was the subject of an extended discussion.

Q. Among other matters in discussion of the entire contract, this was the subject of discussion? A. Yes, sir.

Q. The commercial reasons which you have assigned as inducing you to be favorable to the contract in the form in which it was finally drafted and executed, to what extent did that view pertain among those present at that last conference in Mr. Simpson's office. A. As I remember, it was quite an unanimous opinion. It is some time ago. I do not remember exactly.

Q. What feature of safety, if any, is secured, in your opinion, to the individual operator, by the incorporation of that clause in that sixty-five per cent. contract? A. I do not think it interferes at all with the stability of the operation. I think it helps it and increases it, because, as I have said before, you have a solvent customer to do business with.

Q. Forever? A. Forever, during the life of your property. Second, it insures your individual business, a continuance of sixty-five per cent. of the free-on-board price, whatever that might be, without compelling him to go into the open market. And, as I say, having long sizes, possibly be compelled, having no storage for those long sizes, be compelled to sell that portion of his profit, which would mean ruin to him.

Q. This matter of storage, I would like to ask you another question about that. Is that within the financial capacity of the individual operator, to provide for storage, take it year in and year out? A. I think not, no, sir. At least it is not within mine.

Q. You are familiar, I take it, with the advances in the wage rate, in the cost of materials, in the mining cost, in the royalty rate, in the tax rate, and in the various things which enter into the debit side of a colliery operation in the last ten or fifteen years? A. Fairly so, yes, sir.

Q. Can you give me any concrete illustrations from any of your operations, if they are fairly typical of the region in which they are located, of such increase? Take up the cost of materials, for instance. A. The cost of material, of course, I think everyone is aware that there has been a very pronounced increase in the cost of everything that enters into the mining of a ton of coal, not only in the increased cost per foot of the lumber used, but the increased amount made necessary to be used since the formation of that contract.

Q. By that you mean the sixty-five per cent. contract? A. Yes, sir.

Q. Have you got in mind any concrete illustration of that in connection with any of your operations? A. Take our Green Ridge Colliery, for instance. In 1901 and 1902 we used about a hundred thousand lineal feet of six-inch timber. Last year we used in the neighborhood of two hundred thousand feet—one hundred and ninety-five thousand and some odd feet. That simply illustrates the

increase of the amount of timber made necessary, owing to the lengthening of the gangways, and keeping up of the work of this kind before.

Q. The cost of that was what. In what way has it changed in the last ten years? A. The cost of a six-inch prop is possibly a cent a lineal foot advanced. In other words we paid two and three-quarters cents in 1900 and pay from three to three and one-quarter cents now per foot.

Q. What do you use in the mines for rails? A. We use in our main gangways, steel rails, and in our chambers and average work we use what is known as mine rails, a hardwood rail.

Q. Any difference in the cost of a mine rail? A. Yes, sir. They have increased from eleven dollars to eighteen dollars.

Q. A thousand feet? A. Yes, sir.

Q. What increases are there, if any, in the matter of the supplies such as hay, grain, and feed? A. That fluctuates up and down. Take it all in all there has been a substantial increase.

Q. What decrease, if any, has there been in the efficiency of labor since the strike award of 1902? A. I do not understand that question.

Q. I mean the output per man per ton. A. Of course the efficiency of the man has been decreased by the reduction of hours.

Q. And the reduction of hours, as a part of the Award of the Strike Commission, was from what to what? A. That was from a ten to a nine hour day. Of course that decreases the maximum of efficiency of a man by just one hour. It naturally increases the cost per ton.

Q. Can you give me a statement that would be fairly illustrative and typical of the increase, if there has been one, in the cost of labor in the last ten years? A. No, I cannot give you that off-hand. I can give you the cost of our colliery, for instance, during the last six or seven years. Our labor cost at this Green Ridge mine has in-

creased from one dollar thirty cents and a fraction, to one dollar sixty cents and a fraction per ton. That is the labor cost.

Q. Can you give me your average thickness of vein which you have been operating in the fifteen years that you operated at the Green Ridge? A. At the time of the award of the Commission we were operating with our other veins the Clark vein, running from six to nine feet. Of course that is entirely exhausted. I think we are mining from three to four and one-half feet.

Q. To what, if any extent, does that increase the cost? A. Very materially increases the cost.

Q. What are the thicknesses of the veins at your North End operation? A. They vary. That is a robbing proposition. There is but very little solid coal there.

Q. That is what? A. Known as a robbing proposition. There is very little solid coal.

Q. In other words, nothing, practically speaking, is left there except the pillars? A. Except the pillars.

Q. They were made how many years ago, do you know? A. A great many years ago.

Q. The proposition now is to win as large a proportion of those pillars as you can? A. Yes, sir.

Q. What, if anything, can you tell me as to the risks and hazards of the business, if they fairly enter into the cost of producing coal. A. I think we all understand that anthracite mining, or any coal mining, is hazardous, extremely so. We not only have to contend with the squeezes, that are naturally incident to the mining of coal, but we have to contend with fire.

Q. Have you ever had any experience in the matter of fires? A. Yes, sir, somewhat.

Q. How many of your operations have you had them in? A. I have had them in three.

Q. Out of five? A. Yes, sir.

Q. What interruption, if any, did such fires cause any of your operations? As a matter of time, I mean. A. From a few days to three or four years.

Q. What, if any, expense must be maintained during that idleness? What are the fixed charges that still run on? A. Your organization, maintenance of your outside improvements, and the re-opening of your colliery after you have been able to drown it out to put the fire out.

Q. Is that a small or large item? A. A very large item.

Q. To what extent has the system of pumping increased in the last ten years as to cost? A. In the collieries that I control, not to any material extent. Some of the collieries it has increased very much, according to the greater depths. We were on the bottom vein at the time of the sixty-five per cent. contract and we have not gone any deeper since that time.

Q. From your knowledge generally of the region? A. It must have increased very materially, yes, sir.

Cross examination.

By MR. MCREYNOLDS:

Q. Does the cost of mining vary greatly at different collieries? A. Yes, sir.

Q. In the region where you operate, give us the range of that cost. A. I can only speak so far as our own collieries are concerned.

Q. Give that? A. Do you want that exact cost figure?

Q. If you have it in mind, otherwise, approximately. A. As I stated before, our Green Ridge cost last month was one dollar and sixty cents and a fraction.

Q. Per ton? A. Per ton, that is labor cost. That does not include bills or royalty or depreciation. Our Enterprise cost was one dollar and seventy-four cents.

By JUDGE MOOT:

Q. Labor cost? A. Yes, sir, these are labor costs. Our North End cost was one dollar and ninety-three cents. Our Bernice cost was one dollar and twenty-five cents.

By MR. MCREYNOLDS:

Q. That was for the month of March, 1909? A. Yes, sir.

Q. As near as you can recall, what were the same costs ten years ago? A. I could not answer that. I can give you the Green Ridge cost and I can give you the Enterprise cost.

Q. Ten years ago? A. I won't go back ten years ago. I will go back to 1900. 1900 the labor cost was one dollar and thirty cents and a fraction; and the labor cost at Enterprise was one dollar and one cent and a fraction.

By JUDGE MOOT:

Q. Enterprise was part of Bernice? A. No, sir, I did not own the Bernice proposition at that time. I might say the labor cost was so high at Bernice that they did not attempt to count it.

By MR. MCREYNOLDS:

Q. Ten years ago? A. Yes, sir. North End I did not own at that time.

Q. You sell the coal from all of your operations except one, to the coal carrying roads, do you? A. Yes, sir.

Q. What is that one? A. Bernice.

Q. Where do you sell that to? A. We sell that through Northern New York, Canada and the West.

Q. Do you send that coal to tide? No, sir.

Q. Why not? We have a freight advantage, being closer to the northern market, making fifty cents difference in our freight rate.

Q. It would pay you better to sell that coal on the sixty-five per cent. contract than to sell it as you do? A. Would pay me better to sell it on the sixty-five per cent. contract.

Q. Would the railroad companies, do you think, buy that coal on the sixty-five per cent. contracts, charge against it the total freight rates, and come out even?

MR. WARREN:—Objected to because that is asking the witness to tell about somebody else, and it is not cross examination.

A. I do not know.

By MR. MCREYNOLDS:

Q. You know what the freight rate is? A. Yes, sir.

Q. You know what you get for the coal? A. Yes, sir.

Q. Could the railroads pay you sixty-five per cent. of the average tidewater price and sell that coal in the market and charge against it the full freight rate and come out even? A. I think possibly Mr. Sayre thought so when he refused to make the contract with me.

Q. Thought what? A. That he could not, because he refused to make the contract with me for the purchase or sale.

By MR. WARREN:

Q. Mr. Sayre was who? A. Vice-President of the Lehigh Valley Coal Company.

By JUDGE CAMPBELL:

Q. At some point in this connection it will be stated that the Lehigh Valley practically is the railroad connection you have at Bernice? A. The only one, yes, sir.

By MR. WARREN:

Q. And the only one within a great many miles? A. Yes, sir.

By MR. MCREYNOLDS:

Q. When you ship that coal out to the market are you charged with the total published freight rate on it? A. Yes, sir.

Q. You pay that without discount to the railroad? A. Yes, sir, that is our customer pays it. We sell all our coal free-on-board at the mines.

Q. And leave the freight be paid at the other end? A. Yes, sir.

Q. Do you ship any coal to tidewater? A. No, sir. That is not entirely a truthful answer. I ship some coal to be sent in down at the Province of Quebec, down three rivers, and Canada, via Perth Amboy.

Q. Does any of the coal taken out any of your operations go to tidewater and New York City? A. I think possibly some from all of the collieries except Bernice. As I answered Mr. Warren's question, we billed the coal at the breaker, according to the desire of the purchasing party. I would not know where it went to, because that is in the hands of our weighmaster.

Q. You have given us the range of labor cost for mining coal at the operations which you superintend? A. Yes, sir.

Q. Can you give us the range of that cost in the Lackawanna region? A. No, sir.

Q. Cannot give us the maximum and minimum? A. No, sir, I have no method of knowing.

At 5 P. M. adjourned until Thursday, April 22d, 1909, at 10 A. M., to meet at the same place.

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324 Post Office Building, Philadelphia, Pa., April 22d, 1909, 10 A. M.

Present:—The Examiner.

Counsel present:—Messrs. McReynolds, Todd, Warren, Campbell and Moot.

MR. WARREN:—I offer in evidence a certified copy of the Articles of Association of the New York, Wyoming and Western Railroad Company.

Certified under the seal of the Secretary of the Commonwealth, dated July 17th, 1907.

(Paper marked "Temple Iron Company, Exhibit No. 10.")

MR. WARREN:—I now want to offer certain contracts to show the evolution, as I call it, of the contracts for the sale of anthracite coal from the beginning. I am first going to offer a certified copy of what it was then known, and has ever since been called, the labor basis contract.

This is an agreement between William Connell and others, and the Delaware, Lackawanna and Western Railroad Company, bearing date September 1st, 1870. Acknowledged and duly recorded in Luzerne County, of which Scranton at that time was a part, in Deed Book No. 144, page 131. Certified under the hand and seal of the Re-

corder of Deeds of Luzerne County, on the seventh day of April, 1909.

(Paper marked "Temple Iron Company, Exhibit No. 11.")

MR. WARREN:—I offer in evidence a contract between the Lackawanna Coal Company, Limited, and the New York and Scranton Construction Company, dated 8th July, 1881. Acknowledged the same date, and recorded in Lackawanna County in Deed Book No. 10, page 59, and so forth; being what is popularly designated a fifty per cent. contract.

(Paper marked "Temple Iron Company, Exhibit No. 12.")

MR. WARREN:—I next offer contract dated August 13th, 1889, between the Edgerton Coal Company, Limited, and the Hillside Coal and Iron Company. Acknowledged the same day, and recorded in Lackawanna County. Being known as a fifty-five per cent. contract.

(Paper marked "Temple Iron Company, Exhibit No. 13.")

MR. WARREN:—Also contract between the North-West Coal and Iron Company, dated April 1st, 1892. Acknowledged and recorded. Being what is called a sixty per cent. contract.

Counsel for the Temple Iron Company say they have taken at random contracts accessible, known as the labor basis, the fifty per cent., the fifty-five per cent. and the sixty per cent., offering them simply for the purpose of showing the form of such contracts and the character thereof.

(Paper marked "Temple Iron Company, Exhibit No. 14.")

MR. WARREN:—I next offer contract between the Northwest Coal Company, Limited, and the New York, Ontario and Western Railroad Company, dated February 2d, 1889. Duly acknowledged and recorded.

(Paper marked "Temple Iron Company, Exhibit No. 15.")

MR. WARREN:—I next offer in evidence contract dated August 30th, 1889, between the Northwest Coal Company, Limited, and the Hillside Coal and Iron Company. Acknowledged and recorded.

(Paper marked "Temple Iron Company, Exhibit No. 16.")

MR. WARREN:—I offer agreement dated January 15th, 1891, by and between the Northwest Coal Company and Dickson & Eddy.

(Paper marked "Temple Iron Company, Exhibit No. 17.")

MR. WARREN:—Agreement dated 15th January, 1892, between the Northwest Coal Company and Dickson & Eddy.

(Paper marked "Temple Iron Company, Exhibit No. 18.")

It is agreed by counsel that the following may be treated as though testified to by a competent witness introduced for that purpose, or attested in some other competent way subject to objection as to materiality, relevancy or competency, but not as to the form or method of proof:

The Temple Iron Company was incorporated under the provisions of an Act of Assembly of the State of Pennsylvania entitled "An Act to provide for the incorporation of iron and steel manufacturing companies," approved March 21st, 1873 (Pamphlet Laws, 1873, page 28, *et seq.*), which reads as follows:—

"AN ACT

"To provide for the incorporation of iron and steel manufacturing companies.

"SECTION 1. Be it enacted, &c., That when any three or more persons may desire to form a company, under the provisions of this act, for the purpose of making iron or steel, or of manufacturing iron or steel in any shape or form, either of these metals exclusively, or in combination with other metals or with wood, and shall have subscribed as capital stock for that purpose a sum not less than twenty thousand dollars, and actually paid in to such person or

persons as they may have appointed to receive the same, ten per centum of the capital stock so subscribed, it shall and may be lawful for them to prepare a certificate, in writing, in which shall be stated the corporate name of said company, and the amount of the capital stock thereof, the number and value of the shares into which said stock has been divided, the amount of stock subscribed, the amount actually paid in and to whom paid, the names and residences of the subscribers, and the number of shares subscribed by each, the name of the county in which the chief operations of the company are to be carried on, and the names of the president and directors who shall manage the affairs of said company until the next election, which shall be signed and verified by the affidavit of the president and directors therein named.

"SECTION 2. That the said certificate shall be filed in the office of the secretary of the commonwealth, who shall enter thereon the date of the filing of the same, and submit it to the attorney general of the commonwealth for examination; and if the attorney general shall find the certificate to be properly drawn, signed and acknowledged, according to the provisions of this act, then the secretary of the commonwealth shall cause a true copy thereof to be recorded at length in a suitable book to be kept in his office for that purpose, and the governor shall issue letters patent under the great seal of the commonwealth, declaring the subscribers of the stock of said company, and those who may thereafter become subscribers or holders of the said stock, to be a body politic and corporate, in fact and in law, by the name style and title stated in the certificate as aforesaid.

"SECTION 3. That every such company shall have power to make and use a common or corporate seal, and to change, alter or amend the same at pleasure, and by their corporate name shall be competent in law to sue and be sued in any court of this commonwealth; and they shall have power to make and establish such rules, regulations and by-laws, not inconsistent with the constitution and laws of this commonwealth, as they may deem necessary or convenient for the

government of the corporation and for conducting or managing their business, providing for the election or appointment of a treasurer and secretary, and such other officers and agents as the business of the company may require.

"SECTION 4. That the capital stock of every such company shall consist of not less than twenty thousand dollars nor more than one million dollars, and shall be divided into shares of not more than one hundred dollars each; and all subscriptions to the capital stock shall be paid in such instalments, and at such times as the directors may require; and if default be made in any payment, the person or persons in default shall be liable to pay, in addition to the amount so called for and unpaid, at the rate of one per centum per month for the delay of such payment, and the directors may cause suit to be brought for the recovery of the amount due, together with the penalty of one per centum per month as aforesaid; and no stockholder shall be entitled to vote at any election, or at any meeting of the stockholders, on whose share or shares any instalment or arrearages may have been due and unpaid for the period of thirty days immediately preceding such election or meeting. The shares of the capital stock of every such company may be transferred on the books of the company, in person or by attorney, subject to such regulations as the by-laws may prescribe. The amount of the capital stock may be increased or diminished at any general election or special meeting of the stockholders, by a vote of two-thirds of all the shares of stock held by such company; *Provided*, every such increase or diminution shall be certified by the President and secretary, within thirty days, to the secretary of the commonwealth and to the auditor general.

"SECTION 5. That the business of every such company shall be managed by the president and board of directors, (who shall be selected annually by stockholders from among their number, at such time and in such manner as the by-laws may prescribe,) and shall continue in office until their successors are duly chosen: *Provided*, The

board of directors shall not consist of less than three members including the president, and a majority of the board shall be citizens of this commonwealth. All elections by the stockholders shall be by ballot, and every share of stock shall entitle the holder thereof to one vote, in person or by proxy.

"SECTION 6. That every such company shall have the right to purchase, lease, hold, mortgage and sell real estate and mineral rights, to prove and open mines, to mine and prepare for market or for their own use and consumption, iron ore and other minerals, and to erect and construct furnaces, forges, mills, foundries, manufactories and such other improvements and erections as they may deem necessary, and to manufacture iron and steel, in all shapes and forms, either of these metals exclusively or in combination with other metals, or with wood, and to transport all of said articles, or any of them, to market and to dispose of the same, and to do all such other acts and things as a successful and convenient prosecution of said business may require; *Provided*, They shall not at any one time have more than five thousand acres of land within this commonwealth, including leased lands.

"SECTION 7. That every such company may make and issue bonds, with or without coupons attached, bearing interest not exceeding eight per centum per annum, and sell, exchange or otherwise dispose of the same upon such terms and conditions as they may deem advisable; and such bonds and the interest thereon may be secured by a mortgage or mortgages upon the corporate franchises, real and leasehold estate; *Provided*, They shall not issue bonds for a greater sum than three times the amount of the capital stock paid in.

"SECTION 8. That every company incorporated under the provisions of this act shall pay into the treasury of the commonwealth a bonus of one quarter of one per centum upon the original amount of the capital stock, and upon any increase thereof, in five equal annual instalments, and such taxes as are or may be required by law; and the stockholders shall only be individually lia-

ble for debts due to the laborers for services, and in that case for no period exceeding six months.

"SECTION 9. That the president and directors of every such company, shall annually lay before the stockholders a full and complete statement of the business and affairs of the company, for the preceding year; and it shall also by their duty to make report to the auditor general annually, at such time and in such form as he may prescribe, of the operations of the company for the preceding year, to the end that he may ascertain the amount of tax due by said company to the commonwealth; and such report shall be verified by the oaths or affirmations of president and treasurer of such company; and any such company which shall neglect or refuse for sixty days after notice given to report to the auditor general, as aforesaid, shall be liable to a penalty of five hundred dollars for the use of the commonwealth, to be sued for and recovered as debts of like amount are or may be by law recoverable.

"SECTION 10. That whenever any persons, forming a company under the provisions of this act, shall state in the certificate required by the first section of said act, that they are willing that the stockholders shall be individually liable for all debts of the company as fully as if they were members of a partnership, then, and in that event, the stockholders of such company, whether holding the certificates of stock in their own name, or being the parties beneficially interested therein, shall be jointly and severally liable, in their individual capacities and estates, for all debts, contracts, or other liabilities of the company, contracted or incurred during the time such stockholders respectively own their stock, or are beneficially interested therein: *Provided*, That all companies incorporated under this act, upon the condition aforesaid, and whose stockholders shall thereby assume such individual liabilities as aforesaid, shall be subject to only one-half the taxation now or hereafter imposed by the laws of this commonwealth upon such incorporated companies.

"SECTION 11. That it shall and may be lawful for any corporation organized under this act, to appropriate any

stream or streams, spring or springs, flowing through or along or rising upon any lands belonging to and owned by such corporation, in the vicinity of their works, for the purpose of supplying the same with steam or water power, upon the said corporation filing in the office of the prothonotary of the court of common pleas of the county in which such works may be located, a draft or drafts, showing the stream or streams, spring or springs, which may have been appropriated for the purposes as aforesaid, whereupon it shall not be lawful for any other corporation or individual to divert or use the water of any stream or streams, spring or springs, thus appropriated, so as to diminish the usual accustomed and natural flow thereof; *Provided*, That every corporation thus appropriating any stream or streams, spring or springs, shall, after using the waters of the same for their manufacturing necessities, return the same into the usual and accustomed channel whereby the waters of such stream or streams, or spring or springs, have theretofore been accustomed to flow off or along the lands of such corporation.

"SECTION 12.—The incorporation of any association of persons under the provisions of this act, shall be held and taken to be of the same force and effect as if the powers and privileges conferred, and the duties enjoined, had been conferred and enjoined by special act of the legislature; and the franchises granted shall be constructed according to the same rules of law and equity as if it had been created by special charter, and no modification or repeal of this act affect any franchise obtained under the provisions of the same.

"SECTION 13.—That it shall and may be lawful for any incorporated company of this commonwealth to subscribe and take shares of stock in any company incorporated under the provisions of this act, or to purchase the bonds or stock, or guarantee the payment of said bonds and the interest thereon, or either principal or interest.

"SECTION 14.—That all laws and parts of laws incon-

sistant with this act be and the same are hereby repealed, so far as they may relate to or affect any company incorporated under the provisions of this act, or the stockholders of any such company; *Provided*, This shall not apply to laws imposing taxes upon such corporations.

"Approved,—The 21st day of March, A. D. 1873."

Letters Patent and Charter granted by the Commonwealth of Pennsylvania March 22d, 1873, recorded in Berks County, Pa., in Charter Book 2, page 361, &c., said Letters Patent reciting that The Temple Iron Company has fully complied with the stipulations, conditions and things directed to be performed in said recited act. The limitations on the amount of the capital to $1,000,000, in Section 4 of said Act, was increased to $30,000,000 by Act of June 10th, 1893 (Pamphlet Laws, page 417), viz.:—

"That any corporation created by especial or general laws shall notwithstanding any limitation upon the amount of its capital stock by such special or general law, have authority, with the consent of the persons holding the larger amount in value of its stock, to increase its capital stock to accomplish and enlarge the objects and purposes of its incorporation to the amount of thirty million dollars in the aggregate; such increase may be made at once or from time to time as the stockholders aforesaid shall determine."

As to the proviso in Section 5 as to the Board of Directors and their residence, the Act of April 29th, 1874 (P. L., 1874, page 100, Clause 7 of Section 38), reads as follows:—

"A majority of the stock of any such corporation may be held by persons who are not citizens of this State or of the United States. A majority of its directors may be citizens of another State, or of any foreign country; and it may have an office at any place without the State, at

which the by-laws of the corporation may authorize the same meetings of stockholders and directors may be held, and any business of the corporation transacted, but it shall also keep an office within the county in which its principal business in this State is transacted, and an officer of the company there, upon whom service of process may be made; and the property and stock of such corporation shall be at all times liable to taxation under the laws of this Commonwealth. Corporations for any of the purposes named in this section, heretofore created by any special or general law of this Commonwealth, on accepting the provisions of the Constitution, shall be entitled to all the privileges and powers conferred by this act upon such corporations to be hereafter created."

Section 6—as to the rights of the company to hold real estate, mineral rights, &c. This section was amended by the Act of April 29th, 1874, (P. L., 1874, page 99, Clause 1 of Section 38), viz.:—

"To purchase, lease, hold, mortgage and sell real estate and mineral rights, to prove and open mines, to mine and prepare for market, or for their own use and consumption, coal, iron ore and other minerals, and to erect and construct furnaces, forges, mills, foundries, manufactories and such other improvements and erections as they may deem necessary, and to manufacture iron and steel, or any other metal, or either thereof, in all shapes and forms, and either with wood, and to transport all of said articles or any of them to market, and to dispose of the same, and do all such other acts and things as a successful and convenient prosecution of said business may require."

The limitation in the same Section, as to the number of acres of land, including leased lands, which the corporation might hold, was amended by the Act of April 29th, 1874 (P. L., 1874, page 99, Clause 1 of Section 38), viz.:—

"They shall not at any one time have more than ten thousand acres of land within this Commonwealth, including leased lands."

The proviso in Section 8, as to bonus on stock and as to increases thereof, was amended by the Act of 15th June, 1897 (P. L., 1897, page 156), viz.:—

"Shall pay to the State Treasurer, for the use of the Commonwealth, a bonus of one-third of one per centum upon the amount of the capital stock which said company is authorized to have, and a like bonus on any subsequent authorized increase thereof."

The proviso in Section 10, as to the individual liability of stockholders, is not applicable to the Temple Iron Company, because at its organization it did not elect to be individually liable for debts.

Section 13, as to holdings by other corporations of stock and bonds etc., was amended by the Act of 17th June, 1887 (P. L., 1887, page 412) so as to permit any incorporated company to subscribe for and take shares of stock in any company incorporated for the purposes named in Section 38 of the Corporation Act of 1874, for the purchase of bonds or stock of such company, or guarantee the payment of said bonds and the interest thereon, or either principal or interest, and making it lawful for any manufacturing company within this Commonwealth incorporated for the purposes named in said Section 38 of the Corporation Act of 1874 to subscribe for, purchase, hold and dispose of bonds or stocks in any incorporated company of Pennsylvania, or elsewhere, or to guarantee the payment of such bonds and the interest thereon, or either principal and interest.

The Act of April, 1869 (P. L., 1869, page 31) provides:

"That it shall and may be lawful for railroad and canal companies to aid corporations authorized by law to develop the coal, thereon, lumber and other material interests of this Commonwealth, by the purchase of their capital stock and bonds, or either of them, or by the guarantee of or agreement to purchase the principal and interest or either of such bonds."

The Temple Iron Company accepted the provisions of the new Constitution and thereby obtained the benefit of all the additional legislation referred to above and increased its

capital stock to $2,500,000, and on the 27th of January, 1899, the Governor of the Commonwealth issued a certificate that the Temple Iron Company had upon that day filed in the office of the Secretary of the Commonwealth a writing accepting the provisions of the Constitution and of the Act of April 29th, 1874, providing for the incorporation and regulation of certain corporations, and therein stated the amount of its capital to be $2,500,000, the number of shares to be twenty-five thousand, par value $100. By the issuance of these new letters patent this company was entitled to all the privileges, immunities, franchises and powers conferred by the Act of April 29th, 1874, and its supplements, upon corporations of Pennsylvania. Its various corporate acts looking toward the increase of its capital stock from time to time, as well as its indebtedness, appearing upon the minute book of the company, were in conformity with the legislation of Pennsylvania, and all of the requirements of such legislation were observed in such matters.

MR. WARREN:—I next offer list of the individual companies in Lackawanna County, similar to that which I offered yesterday of the individuals in Luzerne, which list is taken from the Mine Inspector's reports for the year 1907.

(Paper marked "Temple Iron Company, Exhibit No. 19.")

GEORGE E. STEVENSON, having been duly sworn, was examined as follows:—

By MR. WARREN:

Q. Where do you reside? A. I reside in Waverly, Lackawanna County, Pa. My place of business is in the city of Scranton, in the Connell Building, Lackawanna County, Pa.

Q. What is your profession? A. Civil and mining engineer.

Q. How many years have you followed that profession

and calling? A. Since my early boyhood days, when I worked in conjunction with my father, who was a civil and mining engineer. Independently, since about 1882 or 1883.

Q. Have you had anything to do with railroad construction? A. Yes, sir, both locally and in various other States and Territories.

Q. As for instance, where? A. I was assistant engineer, first with my father on the building of the road known as the Storrs Branch, a little mine road running from the Winton Branch of the Delaware, Lackawanna and Western across to the Pancoast, and directly to the Storrs shaft, one of which was started about 1882 or 1883, the other later. I was a resident engineer and assisted in the location and construction of the transformation of the Pennsylvania Gravity Road from Pittston to Hawley, into the steam road now known as the Erie and Wyoming Valley Railroad.

(It is admitted that the witness is a qualified expert on both the questions of railroad construction and mining engineering.)

By MR. WARREN:

Q. How many years have you been associated with mining? A. Since about the same date. I went upon the Pancoast mine, my first experience, in 1882.

Q. With what operations are you associated as to mining engineering at this time? A. With most of the so-called individual or independent operators in the County of Lackawanna. The Elliott McClure & Co. Special service as an expert for Jermyn & Co. The mining engineer, in conjunction with my partner—we have a firm known as Stevenson & Knight—for the Nayaug Coal Company, the Northeast Coal Company, the Bullshead Coal Company, Moosic Mountain, Mt. Jessup and so forth.

Q. That gives a knowledge and experience of inside workings for how many years, going back from this year? A. Beginning in 1882, when I first began, had my first mine experience.

Q. What was the occasion, if you know, of the creation of what is known in Pennsylvania as the Coal Waste Com-

mission? A. As I understand it, the attention of the Commonwealth's officers had been attracted to the enormous waste in small sizes, and dust, in the mining and preparation of anthracite coal, and, by an act of the Legislature, I think in 1890, the Governor appointed Eckley B. Coxe, and Colonel J. A. Price—I have forgotten the third man on that commission—to make an investigation and a report, and to suggest methods of utilizing this waste, or save it, both as to improved methods of mining and methods of utilizing the necessary waste later. Mr. Price, of that commission, died, or resigned. William Griffith, now a practicing geologist and mining expert, in the city of Scranton, was appointed, I think, to take the place of Colonel J. A. Price, or Mr. Coxe, I have forgotten which. They made a report in 1893.

Q. Do you know what their investigation disclosed, as to the proportion of the coal which was won from the bed under what we commonly speak of as the old methods? A. Yes, sir, they made extensive examinations of the quantity of waste throughout the whole anthracite coal region. They, by comparison with the worked over territory, or worked out territory, found that only from fifteen to a possible fifty per cent. of the coal in the areas of the beds worked over had ever reached market. Their summing up was that for the entire region about thirty-three and one-third per cent. finally went to market.

Q. Now the suggestion that was made about our agreeing to your qualification has lost for a moment, my thread. I want to ask you, have you had associations with, and knowledge of mining conditions aside from those in our own Northern Field? A. Yes, sir, I think so.

Q. In other words, your horizon covers the anthracite coal field, the three regions? A. Yes, sir. I did special work in all the regions with the exception perhaps I have not had a very wide experience in the Little Lehigh region. In Northumberland County I am now serving, by appointment of the court, on the tax appeal cases, in conjunction with William Griffith.

Q. Tax appeal cases from what county? A. Northumberland.

Q. And in connection with that same service, you are necessarily called upon to make investigations as to the conditions of interior workings, as well as outside operations, are you not? A. Yes, sir, a thorough investigation of each and every tract of land in Northumberland County that is underlaid with coal, whether it is appealed from or not appealed from.

Q. Taking our division of the Northern Field, that is to say, the Lackawanna Valley, will you tell us, if you know, about what was the original deposit there in thickness of coal? A. In thickness of coal minable, that is veins two feet and over in thickness, in the thickest spots we had beds aggregating possibly a total of seventy feet, containing of minable coal exclusive of refuse, from fifty to sixty feet over a limited area—the thickest in West Scranton. We had in other parts these thicknesses reduced up near the crops of bottom veins, where only the bottom veins appear to be two feet. To average it as a blanket thickness of minable coal over the entire county underlaid with coal, which aggregates about seventy square miles, it would be, in my opinion, equivalent to from eighteen to twenty feet of minable coal.

Q. That is as it originally was? A. As it originally appeared.

Q. Did you have any association with the investigations made last year in Lackawanna County due to the appeals by the coal companies from the taxing authority's figures? A. Yes, sir.

Q. And did you, with Mr. Norris and other gentlemen, participate or investigate this matter to confront the taxing authorities? A. Yes, sir, I was employed by many of the large companies, and by practically all of the leading independent or so-called individual operators, and I represented a great many coal estates, any number of which the lease provided that the lessor paid the taxes upon the unmined coal. I also incidentally represented

the other side of the controversy in interests of Blakely Borough, as to the proper distribution. Some of the assessments there had included coal that was in Blakely Borough in the adjoining borough of Winton.

Q. Being associated with that investigation, did you have an opportunity to become acquainted with the conditions of the interior workings of that region, speaking broadly now? A. Thoroughly.

Q. And those investigations enable you to tell us, I presume, of what is left in the region, speaking of all of it now? A. Yes, sir.

Q. In the way of minable coal, what is that? A. Including the pillars in the veins worked over, that is excluding the squeezed and inaccessible areas, including the balance of the pillars, portions of which we consider can be mined in the future, with solid coal, principally in the thin veins remaining, results in a total blanket thickness over the entire county of between seven and eight feet remaining; that is, it would be equivalent to seven or eight feet solid coal remaining, showing that twelve or thirteen feet have been mined over and exhausted.

Q. What proportion of it is in pillar coal and what proportion in solid coal? A. About twenty-four per cent., from the tabulations agreed upon and compiled jointly by the county commissioners' experts and the engineers of the various companies, would be in pillars.

Q. What was the average thickness of the seams in our region originally? A. Probably not far from seven feet.

Q. What is the average thickness of the workable seams above two feet which you say represents the line below which they are non-workable to-day? A. Probably three to three and a half feet.

Q. In other words, the entire region below the surface of the earth is honeycombed to-day, is it not? A. Yes, sir, if you could strip the surface, the overlying strata off, you would see a honeycombed structure, in much of it crushed and worthless pillar coal remaining. In some

instances the pillars having been left only from possibly as low as twenty per cent. of the original bed of pillars and has gone to a possible thirty-five per cent. in some instances. Where the bottom strata below the coal veins is of fire clay, of the soft disintegrating nature, the weight of the overlying strata has often pushed the pillars right down into the fire clay, and the bottom has come up and filled the intervening chambers. In other cases the roof, the chambers having been worked very wide on first mining, has fallen and filled the chambers. In other words, where the pillars have proved weaker than either the roof or floor, they have been crushed into powder.

Q. The fact of the matter is, a man could start in at Pittston, forty miles south of Forest City, and meander around the gangways and the crosscuts of the workings, keeping under ground that entire forty miles, could he not, and land at the extreme upper northeast corner of the original geological deposit, could he not? A. It has been done, and could have been done perhaps in a single vein, with these conditions that I have described, where the chambers and gangways have been closed up. It has been done in comparatively recent years by keeping constantly under-ground, but not in the same vein, but going from vein to vein.

Q. The interruptions are due to the causes you have described? A. Yes, sir, you can cross the valley from east to west as we commonly speak of it—the Lackawanna River is commonly spoken of as flowing south from the north, from outcrop to outcrop in the same way at some points.

Q. If you know, to what extent are the conditions as you have described them in the northern portions of the Northern Field, to what extent do those prevail in what I would speak of as the southern portion of the Northern Field, or what sometimes is spoken of as the Wyoming Valley? A. Down as far as Wilkes-Barre, perhaps, in about the same way that they do in Lackawanna County.

Q. What I want to get at is, starting from the extreme

northeastern end of the coal bed of the coal region, the conditions that you have described, this honeycombed condition, following it down to the deposit, in other words to the southwest, how many miles would you say that condition exists? A. Practically the entire length of Lackawanna County, and a large percentage of Luzerne County, until you reach the southern end of Luzerne County, where the veins in the basin are very much deeper and have not all of them yet been worked, except on the higher levels, and where the veins in the southern part of the region are of much steeper pitches.

Q. At the risk of being tedious, I would like to have you tell us, myself, about the earlier mining in our region, evidences of which you have gathered in your investigations so as to enable you, I take it, to speak of them. The first development up in our section was about at what period of time? A. The first development in the Wyoming region followed Judge Jesse Fell's first use of anthracite coal in an open grate in 1808. Efforts were made soon after that to introduce its use in the city of Philadelphia. The first shipments were tried in the pumping stations and put out the fires, and they finally broke the coal up and used it for graveling sidewalks. The coal had been used prior to that time in forges a little, and, along in the early 20's, other shipments were made to Philadelphia, one of which was bought by some iron man in the city—I think that was in about 1820 or 1821—and that coal sold for twenty-one dollars a ton in the city of Philadelphia. Other coal shortly after that was sold at various points along the river, which was then the only means of transportation, at prices ranging, for nearby points, from four dollars a ton up to eight dollars and fifty cents in Philadelphia and as high as fifteen or sixteen dollars in New York.

Q. You have gathered that from historical treatises on the matter? A. Entirely.

Q. Coming down a little nearer to the Northern Field, now, of what character was the development there? A. In the Northern Field, the extreme northerly end of it,

mining did not begin with much force until the building of the Delaware and Hudson Road from Honesdale to connect with the canal to Carbondale, about 1828 or 1829. Following that, the development went on pretty rapidly. The first mining was, of course, of the most accessible coal and was at the crops of the veins, usually selecting the crops that could be worked by drift, that is, crops in which the vein of coal pitched upward into the hill and enabled the water to run out without pumping. I think about 1824 to 1829, somewhere, efforts were first made to pump water from the mines by water wheel and some combination for pumping water. Wurtz Brothers, I think, introduced the first one. The mining did not really begin, in a real commercial way, until after the building of some of the railroads into the Northern Field; the Pennsylvania, I think, was built in about 1850.

Q. What do you mean by the Pennsylvania? A. The Pennsylvania Coal Company's gravity road from Hawley to Scranton. The Delaware, Lackawanna and Western, in about 1851 to 1853, built a road from Scranton to Great Bend, climbing through the precipitous mountains on the north side of the coal basins, rising five hundred feet in the first seven miles and then dropping down across the various tributaries of the Susquehanna River and crossing the ridges between by heavy grades to the Susquehanna River at Great Bend. That road is still in existence as it was then built, with tremendous fills, a very expensive road to build and a very expensive road to operate, requiring double headers even on the fast passenger trains to the high summits, and coal trains less than one-quarter the number of cars that are carried by some of the other roads where the grades are much lighter. In 1856 the southern division of the Delaware, Lackawanna and Western was built across the Pocono Mountains, rising from a tidewater elevation in the city of Scranton of about seven hundred and forty feet to possibly twenty-three hundred feet on the tops of the Pocono Mountains; a very expensive and difficult road to build and one that has proved extremely expen-

sive in operation. The Delaware, Lackawanna and Western within the last year has seen fit to change the alignment for four and a half miles, to lessen the grade and straighten the curves and decrease the distance about half a mile, at a cost of nearly half a million dollars. The Lehigh Valley road followed, if I recall, shortly after the building of the D., L. & W., and the Erie and Wyoming Valley replaced the Pennsylvania Coal Company in about 1884 or 1885.

Q. By-the-bye, before that was built the coal produced by the Pennsylvania Coal Company was taken in those gravity cars by steel cables and ropes over the mountains down into the valley in which Hawley is situated; is that correct? A. Yes, sir, and there dumped on chutes and shot down into the canal boats, resulting in enormous waste. That waste was hauled out, had to be gotten rid of at Hawley. It was hauled out and made into railway embankments, some of which has been utilized by the washeries, notably the Hawley Coal Company. The method of handling at that date in Hawley resulted in such enormous waste that one bank I tested there contained ninety-seven per cent. of pure coal.

Q. You have now described the entrance into our field by the Lackawanna; the Lehigh Valley does not get into our Northern Valley there? A. No, sir.

Q. Take now the construction of the Jefferson Branch of the Erie; you are familiar with that? A. Yes, sir.

Q. What sort of construction is that, as compared with what you speak of as average construction in the way of railroad construction? A. Extremely expensive. The Lanesboro viaduct, a high and long structure made of stone in innumerable arches, the number of which I have forgotten, was so extremely expensive that it came very nearly bankrupting the company who built it. All of the construction that has come into the coal region from either direction, north, south, east or west, has been extremely expensive.

Q. Could you give us any comparative figure of the cost of such construction as compared with other rail-

road construction with which you have familiarity? A. As compared to the Western and Southern Railway construction with which I am familiar, I should roughly estimate the cost to be two and a half to three times as great, on the average.

By MR. TODD:

Q. You mean the Southern or Western part of the United States? A. Yes, the Southern or Western part of the United States. I have built some railway in Mississippi, some in New Mexico, some in New York State, or have been connected with it in one way or another, and our cuts and fills are very much heavier, our viaducts and structures of that character are very much more frequent and much heavier, notably the Lanesboro on the Jefferson Branch, the Cadosia Creek and Delaware viaducts on the Scranton, Ontario and Western Branch of the Scranton, of which I was resident engineer at Hancock, New York, those two viaducts being under my care; the D., L. & W., as I have stated, with its enormous fill at Glenburn and its expensive tunnels out of Scranton, in fact, right in the city of Scranton, and its tunnels at Nicholson to the tops of the mountains; the Lehigh Valley with its extremely heavy grades out of the Wyoming Valley—it has sometimes been called the Switzerland of America, where they cross the mountain; the Wilkes-Barre and Eastern, of which my partner was division or resident engineer on the building of the Panther Creek viaduct, one of the most notable steel structures in our State.

Q. Was that expensive? A. Extremely expensive.

Q. Is that on the Wilkes-Barre and Eastern? A. That is the Panther Creek viaduct, in the Panther Creek basin. I have seen the viaduct and have been across it. I think, trusting simply to recollection;—I would not be certain about figures—it is in the neighborhood of one hundred and seventy-five feet high and seventeen hundred or eighteen hundred feet long.

(The Government objects to all this detail. It throws no light on the issue in this case. It is perfectly evident

to anyone that building a road in broken country costs more than it would elsewhere. It is perfectly evident from the evidence introduced heretofore that the anthracite region is a broken region. What a particular viaduct costs and how long it is has nothing whatever to do with this case.)

A. (Continued.) Another notable instance of excessive expense in reaching a few collieries, is a little branch known as the Susquehanna Connecting, branching from the New York, Susquehanna and Western across the valley into Moosic and across the Lackawanna River to reach the Jermyn collieries. On this Susquehanna Connecting Branch there is a viaduct near the Moosic Powder Company's plant twelve hundred feet long and forty or fifty feet high, crossing the Erie tracks and the Spring Brook Creek and the valley beneath. A little further along, within less than a mile, is another high viaduct on the same road, crossing the D. & H. tracks and the Lackawanna River, and finally reaching Jermyn No. 1.

Q. Do you remember when the O. & W., as we speak of it, that is, the New York, Ontario and Western Railway Company, built into our region? A. I was resident engineer at Hancock, New York.

Q. That is where they left the main line? A. That is where they left the main line. I had charge of the first eight miles, as resident, and I am under the impression that it was in 1887 or 1888 that I spent the Winter there.

Q. It has been stated here in the record about 1890, about that time? A. I do not think the road was open for traffic until 1890.

By JUDGE MOOT:

Q. That is the way it was in the record, that it was open for traffic in 1890. A. Yes, I think that is correct.

By MAJOR WARREN:

Q. That comes down into the coal region, striking it at just what point? A. Forest City, I think, first; Carbondale, Mayfield, Jermyn, Archbald, Blakeley or Winton, Olyphant, and finally into the center of the city of Scranton, where it stops.

Q. The Lackawanna River is, to dignify it by that name, about how wide coming down through our valley there? A. At normal times of the year it is a stream about thirty feet in width, about ankle deep.

Q. The Delaware and Hudson Company's railroad is on one side and the O. & W. is on the other; is not that so? A. Yes.

Q. If you know, to whom did the Riverside Company and the Blue Ridge Company sell their colliery operations? A. They are now owned and operated by the Scranton Coal Company.

Q. Which is a subsidiary company of the Ontario and Western? A. Yes, sir, as I understand it.

Q. The Forest Mining Company, which is ordinarily spoken of by us as Jones and Simpson up there at Archbald, that was sold to the Elk Hill Coal and Iron Company, or at least the companies affiliated with the O. & W., was it not? A. Yes, sir.

Q. And is now operated by those companies under Mr. Bryden? A. Yes, sir.

Q. Who is the general manager, is he not, for their several coal companies? A. Yes, sir.

Q. I think you said you were personally associated with the Dolph and the Jessup by reason of being a mining engineer; is not that right? A. With the Mount Jessup and Moosic Mountain; I am their mining engineer and have been for a number of years. The Dolph Coal Company I have not been associated with; I have done some special work for them and against them in various litigation that has arisen between them and other companies.

Q. Speaking broadly through our region, those collieries are located where with reference to the valleys? A. Some of them are near the center of the valley, close to the river and extend right and left, or north and south of the valley, clear through the tops of the montains, some af them at elevations of five hundred, possibly a thousand feet above the valley of the Lackawanna.

Q. What proportion of them, would you say, are in the level or flat portions of the Northern Field there? In

other words, having in view all of them, how many of them are down in the flats, in the way of per cent.? A. I should say roughly fifty per cent. I have not made any study of that.

Q. Let us see; is it five per cent. of them in Lackawanna County? You name me any. A. No, I guess you are right about that. When you get down into the broader valley, the hills do not rise so rapidly from the river and I think I am wrong. I had included those collieries that are on the intervening, gradually sloping lands, as in the valley. Those that are immediately on the low lands adjoining the river probably would not range more than five to ten per cent. I have not made a careful study of that.

Q. Do you know the extent of the trackage built into these various collieries in our field, especially for, and only for, the coal at particular collieries, used for no other purpose and good for no other purpose, I mean? A. I know there is a very great deal of such trackage. Just what its mileage is, I do not know.

Q. Do you know about the character of its cost, construction and operation? A. Yes, sir. It is expensive to construct and expensive to operate, on account of its excessive grades and curvature. The Winton Branch is a notable example of that. It has no other use than the securing of the coal that is found along it. It branches off on the D., L. & W. about five miles or six miles north of Scranton and, by very heavy grades runs—it must have a total trackage now, sidings and all, of twelve or fifteen miles.

Q. Let us leave railroads just a moment and come back into inside workings. The old methods provided, you would say, for what sort of pillars and what sort of chamber openings? A. The first mining, as I said before, began at the crops and the effort was to get all the coal you possibly could as quick as you could and as cheap as you could, without regard to conserving it for future mining, the effort being to make immediate profits. The

result was that one vein was not worked in the interests of the veins either above or below it. No attention was paid to leaving sufficient pillars to support the overlaying strata as the work progressed deeper and deeper, or further in under the mountain. The average percentage in pillars left at that date was probably not over thirty per cent., although it varied from as low as fifteen or sixteen per cent. where the cover was very light to thirty-five per cent. where it was heavy.

Q. The ordinary mining pillar of coal was how thick, would you say? A. On a twenty-eight-foot chamber, forty-foot centers, it would mean about a three to four-yard pillar; twelve or fifteen feet.

Q. When you speak of centers that way, will you not explain that? A. That is the distance between the centers of the chambers, the lines being laid off say forty-foot centers and approximately at an angle with the haulage road. The miner works up along this line of the center of his chamber, fourteen to fifteen feet on either side of it, and that would leave a solid block of coal between his chamber and his adjoiner of twelve to fifteen feet. Those pillars are then intersected every forty, sixty or more feet.

Q. What sized pillars are left to-day and for, say the last ten years, as compared with those three or four-yard pillars? A. It depends on the depth of the vein below.

Q. What is the average? A. The average would probably be twenty-four or twenty-five feet.

Q. How much larger than under the old method? A. Twice as large; and the chamber has been narrowed in proportion also.

Q. To what extent does that add to the increased cost of mining coal, that very item alone? A. In percentage, it probably adds fifteen per cent., because of the narrower working places and the less quantity of material secured for the area mined over on first mining.

Q. Anthracite coal mining; will you give us your ideas as to whether it does or does not necessitate some fair

sized margin between cost of production and selling price, because of uncertainties and hazards? A. In my opinion, it does. I consider it an extra-hazardous business, because experience has shown us that you are liable to encounter mine fires, water bearing strata that flood and drown out your mines, explosions of gas in the wet and deeper veins, that are extremely disastrous. With regard to the fires, the surface fire are burning of breakers, the breakers are an absolute loss. I do not know of a single instance where one that has taken fire has not been totally destroyed, without any salvage at all. The machinery is simply junk when you get through. The breakers are isolated, not within reach of the fire departments, and it is a very difficult matter to put them out, or to save them. When they burn, you have from a year to two years of idleness following. Your fixed charges, especially if the coal land is under lease at prevailing rates or royalties going right on, you must pay your minimums and fixed charges constantly. If your mine is extensive at all you must immediately make arrangements to do your pumping and keep the water out, or you will be drowned out while you are building your breaker. An illustration of that was the burning of the Sibley breaker, which has just been rebuilt in a year and a half; the mine was idle more than a year there.

Q. The Sibley is operated by what company? A. The Elliot McClure, at Old Forge. An incident illustrating the disastrous nature of mine fires is furnished by the case of the Finn Coal Company at Carbondale, which has been in our courts and just recently decided by the Supreme Court, or Superior Court, I have forgotten which.

Q. The Supreme Court; and when you say recently, it is within a month, is it not? A. Within a month, yes. I was a witness in the case and made an examination of the conditions there. It was a mine fire in what is known as the Carbondale top and bottom coal or the Clark vein, a vein of coal about sixteen feet in thickness

with very little cover, only eighteen or twenty feet. It was mined out in the very early days and no maps were kept to show the percentage left in pillars, but my examination demonstrated that they had only worked out the better parts of the vein, leaving top coal and bottom coal in and probably twenty-five per cent. of pillars. The fire caught from the surface and the roof had fallen between the pillars, leaving the whole thing honeycombed and full of stacks and flues to carry the draft, and it made a very heavy fire. The citizens of Carbondale feared the spread of it below the whole town and instituted injunction proceedings.

Q. How long has it been on fire? A. In my opinion since 1903, although there was testimony adduced to show it caught fire in 1902.

Q. How many operations have there been going in the last twenty years that have not, at one time or another, had either more or less disturbances because of fires? A. Really, I do not think there are any that have been extensive that have not had more or less trouble with mine fires or gob fires.

Q. Just define that word "Gob." It has been used here two or three times. A. Gob is the refuse carried by the veins of coal, coupled with the top or bottom rock that has to be taken down or up in mining the vein of coal, and is piled along the rib of the pillar. In the old days it was largely fine pieces of coal. In the days when mine rakes were used, when only lump and steamer and gratecoal were sent to market, the fine stuff was thrown back in the mines as worthless. The old gob is very rich in coal, and is supposed to take fire spontaneously under certain conditions. It is not known positively how our mine fires are started, in fact it is very seldom known how they are started. Also in the gob is a lot of material that is midway between marketable or merchantable coal and absolute refuse that, in the early days, could not be sent to market because of lack of method of preparation, much of which now goes to market. We often find, on

taking the inner pillars in the old workings that quite a percentage of the gob can be won out and manufactured into marketable sizes of coal, that is, the small sizes. This mine fire at Carbondale, by the way, has put the Finn Coal Company out of business.

Q. Now take these risks or hazards; can you give me an approximate idea of how often they may be expected, that is to say, having in your mind your knowledge of the various operations in the Northern Field; have they interrupted working? A. Yes, sir. There are other hazards; the hazard of squeezes, which occur frequently, are very disastrous sometimes. I have known a property of forty acres, to be, on quitting work at night, up in first-class condition and on returning to it in the morning find the whole thing shut up tight and having come down so suddenly that the compression of the air forced out, swept all the timbering out of the connecting roads clear to the shaft, swept it cleaner of dirt and dust than it could be done with brooms.

Q. How many of the operations in the Northern Field would you say that you are familiar enough with so as to tell us whether they have had, at one time or another, interruptions due either to squeezes, fires, running into unexpected faults of such magnitude as to interrupt the operations in sections of the mines, water coming in, or the various things which interrupt the breakers and development of the work in some sections of the colliery? I do not mean those that absolutely shut them down, but that have caused interruptions in certain sections, that are material and of importance. A. I do not believe there is a colliery of 100,000 tons output annually in the whole Wyoming region—I think I am safe in including the lower end of it too—that has not, at one time or another, been interrupted by disasters of that character.

Q. Are you familiar with the prices of lumber to-day as compared with ten years ago? A. Yes, sir.

Q. What increase, if any, has there been during that period of time?

(The Government objects to any further evidence on this subject. It has been gone into by another witness and the Government will not undertake to introduce any evidence on the subject.)

MAJOR WARREN:—To which we reply that we do not suppose we are confined to a single witness to prove a substantive fact which is competent, material and relevant.

MR. MCREYNOLDS:—If there is no evidence to the contrary, there is no use introducing any more.

A. In various grades it has increased from twenty per cent. to one hundred and twenty, or possibly more in some of the higher grades of lumber used about breaker construction.

Q. Could you give us an average that would fairly approximate the increase of such lumber as is used in and about mining operations, either inside or outside? A. I would approximate the increase in lumber used inside, including the mine rails, the wooden mine rails, three by five hardwood stock, prop timber, lagging, and timber of that character, at about thirty-five per cent. on an average; props not having increased quite so fast as that and mine rails more. Lumber used outside, of the better grades, in breaker building, I think, has averaged probably an increase of seventy-five or eighty per cent.

Q. Assume a breaker to be built and taken possession of, we will say to-day. Are you familiar enough with the wear and tear on breakers to tell us for what length of time that superstructure will stand without requiring expenditures different than those which are ordinarily referred to as to houses or business blocks, occasioned by the ordinary wear and tear? A. The new method of wet preparation subjects a breaker and the timber in a breaker to the wetting and drying process, which is most destructive of timber of any process I have known of. If timber can be kept perfectly dry and away from water, it lasts many years; if it can be kept entirely submerged in water, it lasts very many years; but, when subjected alternately

to both wetting and drying, it decays very rapidly. I do not think the life of a modern breaker is more than ten or twelve years; that is, that the constant repairs going on will practically have renewed the structure in ten or twelve years. With the older used dry breaker, its life is fifteen to eighteen years, possibly twenty years.

Q. Would the increases to which you have referred as to the cost of lumber used inside also apply to that which is used outside, or is there a different figure to represent that? A. The lumber used outside has increased in selling price more rapidly than the lumber used inside, as I have stated.

Q. These questions of change in cost of material, supplies and labor, I want to have you bear in mind, please, that I have in mind those conditions which existed in 1899 and such as existed last year, we will say, or the present time, or, approximately speaking, this date, so that I can get a comparison as between things say ten years ago, and today. Now take carpenter work. Is there much or little of that in connection with breaker construction—of course, everybody knows there is in breaker construction—but in the case of breaker maintenance and inside maintenance of ventilation and brattice and ribwork, where you put in artificial work? A. Every large operation keeps a corps of carpenters constantly employed in repair work.

Q. At each colliery? A. At each colliery; a number of carpenters at the larger collieries, decreasing as the size of the colliery decreases. They rebuild the cars, retimber the shaft, repair the breaker, put up brattices and various work of that character. There is constant repair work going on all the time.

Q. The cost of such machinery as is used inside and out in connection with colliery operations has changed in what way in the last ten years? A. I think we are all unanimous in agreeing that the prevailing prices are from fifteen to seventy-five per cent. higher for all classes of materials than they were in 1899 and 1900.

Q. You have given a wide range, from fifteen to seventy-

five per cent. A. Without reference to particular data that I have at home, it would be difficult to tell just what the variation has been in certain articles. For instance, if my recollection serves me right, steel rails in 1899 and 1900 were sold for about eighteen dollars a ton and, at some points since that time, they have sold for thirty-seven dollars. About the date of the planning of the building of the New York, Wyoming and Western, to which you have referred, I was informed by one of the promoters that they bought a large quantity of steel rails at about that figure.

Q. That is, about eighteen dollars you mean? A. Eighteen dollars; and when the scheme was given up and abandoned those rails were sold for more than a hundred per cent advance, and the quantity purchased paid all the expenses of the surveys and promulgation of the scheme.

Q. You are talking about something that is mere hearsay? You personally did not sell those rails? A. I did not personally sell the rails.

Q. Who is the man that told you? A. Mr. E. L. Fuller.

Q. And that is the only way you know about that? A. That is the only way I know about that. It is the only way I know positively about the price of steel rails at any time.

Q. There are not many steel rails used in and about a coal mine, are there? A. Quite a good many; yes, sir. All the main roads in the best modern mines are laid with steel; the chamber roads are laid with wood.

Q. When you were talking about E. L. Fuller, you were talking about railroad steel rails, were you not? A. Yes.

Q. Having in mind the character of the rail used in the mine operations, that is quite a different thing, is it not, its gauge and everything else? A. Yes. They lay them at a narrower gauge and it is a very much lighter rail.

Q. And the cost is quite different? A. The cost is quite different per mile of track, but the prevailing rates per ton of the two grades are very similar, in fact, I think they are alike.

Q. What would you say has been the labor increase in

the last ten years, that is, the wage increase? A. The wage increase, in my opinion, both inside and out has probably been about thirty-three and a third per cent. since 1900.

Q. What increase, if any, has there been in the cost of mules and equipment? A. Since 1900 the prices of mules have increased at least fifty to sixty per cent.

Q. To what extent is that a matter of importance in a colliery operation? A. That is very difficult to say. In the collieries that are operated entirely by mule haulage, it is a considerable item. In the collieries that have introduced either steam mine locomotives or electric motors or compressed air motors, it is of very much less importance; but still in those collieries mules are used for the chamber haulage.

Q. Are they not used for outside haulage too, under and around the breaker? A Yes, sir; they are used for outside haulage in and around the breaker, used for hauling out the waste. Probably the average colliery uses in the neighborhood of two hundred mules a year.

Q. What changes, if any, have there been in the cost to mining operators or the supplies for mules? I mean feed, hay or corn? A. Hay has fluctuated so radically that it is very difficult to figure out any percentage that would be exact. There have been times since 1900 when it was worth one hundred per cent. more than in 1900. There have been times when it approached the prices of 1900. It is a commodity that is so affected by local supply ——

Q. Then we will pass that. A. The grain has had an unusual increase for all characters of grain, oats and corn, that I should think would approximate fifty per cent. increase.

Q. To what extent would you say, if any, labor has decreased in its efficiency per man in the last ten years? A. That is a very difficult question to arrive at. The method that Mr. Norris used is perhaps the best one. The figures that he gave would be perhaps more accurate with relation to those collieries than anything I could give you. My

own opinion is that, immediately following particularly the strike of 1902, the depreciation in the labor was very marked. It has gradually been coming back, as the men taken on at that time become more efficient. Of course, there was a direct loss there of at least ten per cent. on even the same men, on account of the shortening of the day.

Q. I wanted to ask you about that. The change from a ten-hour to a maximum nine-hour day would to what extent affect the cost of mining a ton of coal? A. It would reduce the efficiency of the labor employed ten per cent., and therefore affect it ten per cent.

Q. The cost of construction of breakers and the opening and developing of collieries, what change if any has there been in that within your experience? A. The collieries built in recent years have usually been built with a larger capacity than the collieries built in earlier years. The expense attending the building of a modern colliery is considerably more than doubled in recent years.

Q. You have been associated with construction of breakers, so as to know of this from your own observation, have you not? A. Yes sir. While the planning and building of breakers in our firm is done by my partner, yet I am familiar with it.

Q. Could you give us an approximate figure that you think would fairly represent the difference in the total labor cost of mining a ton of coal to-day as compared with that of 1898? In other words, I repeat to you exactly the question Mr. McReynolds asked Mr. Norris yesterday afternoon. A. I gave you already my idea of the total increase in labor cost in mining a ton of coal, at thirty-three and one-third per cent—about a third, thirty-three to thirty-five per cent., approximately.

Q. But you do not understand my question. I did not say labor cost, I said mining cost; the difference in the cost of mining a ton of coal. Of course, I did not mean by that to restrict it to labor alone. I mean, have you investigated it so as to justify yourself in giving us an

approximation of it? A. You want that on a percentage basis?

Q. Any way you want to give it, so that you can express the difference; any way you want it. A. I know at one colliery with which I am familiar with the total cost of mining and preparation, it has increased from one dollar and fifty cents perhaps, in ten years, to two dollars and twenty cents, and I think, as a generalism applied to the whole region, that that perhaps would represent the average percentage.

Q. That is, whatever per cent. that is? A. Whatever that per cent. results in.

Q. What is that per cent.? A. About forty-six and one-half per cent.

Q. You said fifty, did you not? A. Yes, I said fifty. I approximated it fifty. Of course, that is affected by the character of the veins being worked at each colliery to such an extent that it is a very difficult item to figure out. The detail sheets from each colliery are the only methods by which you could secure it, where actual track has been kept. The range of mining and preparation is so wide that it runs all the way from a profitable basis to a prohibitive basis, probably varying from one to three dollars a ton in different veins and different conditions.

Q. If you were to assume, as I am going to for a moment, that the average price of all sizes of anthracite coal at tidewater in 1898 or 1899 was three dollars and three cents, and in 1909 was four dollars and eleven cents—which means a difference of one dollar and eight cents, does it not? A. Yes, sir.

Q. Which represents a per cent. of what? A. Per cent. of increase?

Q. Yes. A. About thirty-three and one-third, roughly speaking.

Q. If I am correct in my assumption, the enhanced price for anthracite coal at tidewater, of which the Government speaks in its complaint, has not kept up, or does not represent the same ratio of increase as that of other commodities with which you are familiar, or,

indeed, the change in the labor cost in that particular commodity? A. That is my opinion.

Q. To what do you ascribe or attribute the enhanced price of coal as compared with ten years ago? A. I think it is justified by the conditions that prevail in the anthracite coal regions. The increase in cost of labor and materials and the decreased efficiency of the miner and the poorer condition and thinner condition of the veins now being worked—all of the causes. One you have not spoken of is the increased cost of pumping.

Q. I am coming to that. You say it is justified; how about a higher price being justified, if you take into account the same ratio of advance in other commodities and the reasons of this advance? A. The price will in my opinion, be enhanced in the near future, and should be, as a necessity to the existence and life of the business.

Q. One of the things which has added to the cost in recent years of mining a ton of coal, I assume, has been that by this modern method of work inside, you temporarily get a less yield at a higher cost? A. Yes, sir.

Q. Than under the old method, which simply mined for the first yield, irrespective of the ultimate yield; is not that right? A. That is true. You lessen your immediate profits to enhance the probability of your future profits, because you increase the tonnage that will finally be won from a certain territory.

Q. I see, in looking over your testimony as an expert in the coal cases in Lackawanna County a year ago and, of course, therefore, thoroughly dissociated from this investigation by the Government, an expression to which I want to call your attention: (This is upon page 238 of the testimony in that case as bound and printed.) "If as careful attention had been paid to the increased cost of treatment and the increased cost of labor as has been paid to the increased price of coal, it would have been found that only a small proportion of the increased price of coal in the market has gone to the operator. In a small measure it is true that the increased price has prompted the operator to work veins of coal that he

formerly did not work, but a part of his ability to do that has been due to improved methods and greater effort on his part and has not always been warranted by the increased price. Often efforts have been made and large seams extended trying to work veins that, on proving, have to be abandoned." Is that a correct statement of the situation, as you understand it? A. It is, as it appeals to me. I can illustrate the latter part of that by an instance where the Mount Jessup Coal Company put in a shaft on the strength of a bore hole put down under my supervision, that seemed to prove the thickness of a vein of coal to be four and a half to five feet. A slope at several thousand dollars expense was driven to it and proved the correctness of the bore hole for an area of about twenty-five feet in diameter. Beyond that distance it pinched out to sixteen or eighteen inches, resulting in a big loss.

Q. To what extent, if any, have taxes increased in the anthracite region in the last ten years? A. Valuations of anthracite coal lands for taxable purposes and the taxation itself have resulted, in instances that I know of, in an increase of four or five hundred per cent.

Q. How many do you know of? If you only know of one or two that does not amount to much. A. I know of the whole county. I do not know the increases in all. In other words, I do not know the actual assessment in detail of the coal lands in every instance ten years ago, but I do of many of them. I do, however, know the present rates of assessment of all of them in the county of Lackawanna.

Q. You do know, do you not, that ten years ago it was seventeen dollars per foot acre and to-day it is fifty-three, provided the adjustment the Supreme Court has provided shall be made is adopted by the lower court? They originally fixed it at sixty dollars. A. Yes, sir, I do know the rate of valuation of all the tracts in the county ten years ago and at the present time.

Q. And the average is about forty mills, is it not, in our county? A. Yes, sir, it averages about forty mills.

The valuation per foot acre in the city of Scranton is $135.

Q. I was going to ask you about that. The county valuation is what I was speaking of as fifty-three dollars; what proportion of the coal lands in our county are in the city of Scranton? A third, a quarter, a half, or what? A. I had that figured out in our tax appeals, but I do not recall.

Q. A considerable proportion? A. A considerable proportion, yes. I do not just recall what the percentage is.

Q. And that is assessed at $135? A. That is assessed at $135 a foot acre.

Q. In Luzerne County, the balance of the Northern Field, what proportion of the lands there are in Wilkes-Barre? A. I really cannot answer that question without access to tabulations I have at home.

Q. You know in general, do you not? A. Quite a large proportion.

Q. You know the coal tax matters have been the subject of judicial inquiry within the last year and an adjudication obtained, from which an appeal has been taken which is now pending? A. Yes, sir.

Q. But, at any rate, there will be a rise in the tax as affecting the Lehigh and Wilkes-Barre and all the companies in the Wyoming Valley? A. Yes, sir.

Q. To what extent is it fair to take that into account in determining the cost of a ton of coal and the profit that a man mining coal could reasonably ask from the consumer? A. It adds to the fixed charges of the operator and to the holding charges for lands that are not now broken, or parts of tracts that are not now broken, making interest charges equivalent to about ten per cent. per annum as against the lands so being held.

Q. A man that owns a tract of coal land, we will say of five hundred acres, gets the benefit of the coal in that land how many times? A. Only once, and then at the time when he can mine it and sell it.

Q. A man who owns surface lands improved, gets the

benefit on them every year if they are rentable or improved? A. Yes, sir.

Q. Consequently the difference between the ownership and control of coal lands and surface lands is the necessity of the retention of a large proportion of your actual acreages until it can be reached in your development work? A. Yes, sir.

Q. And upon which you are paying an annual tax; is not that right? A. Yes, sir, that is true. You have to destroy the body of a coal estate in order to win any profit from it; when once destroyed, it is valueless. During the time you are holding it, until you can reach that time of destruction, it is practically doubling in value every ten years. That is, it is doubling in cost every ten years, whether it doubles in value or not. For instance, an acre of coal land bought in 1872 or 1870, as much of the coal land was bought by the Reading in Northumberland County, at $500 an acre, if their taxation charges had been as great as ours are in Lackawanna County at the present time, it would have required to sustain it a sinking fund amounting to six per cent. on the original cost per annum, plus four per cent. taxes, which would be ten per cent. which, according to my figures, roughly, would double the value of the property every ten years at simple interest.

Q. That is, the cost of keeping it? A. That is the cost of keeping it. As an illustration, some of that land purchased at that date is still idle and has not been producing in all those years, so it is an easy matter to calculate what the cost of holding it would be.

Q. Then the anthracite coal business is *sui generis*, at least in this respect, that the dealer therein, the manufacturer of the article for sale, is destroying his capital account each year? A. Yes, sir.

Q. It does not apply to any other business on earth; is not that right? A. It does apply, to a limited extent, to the sawmill business, in a little different way. The lands, while there standing awaiting cutting of the timber,

are usually increasing in value by the growth of the timber, which does not happen in the coal lands, but, on the cutting of the timber, their value as timber lands is destroyed, of course. It is similar and different.

Q. That would make it somewhat similar and analogous to mining? A. Yes.

Q. But that is the nearest relation? A. That is the nearest illustration that I can give.

Q. What, if any, changes have there been in the matter of pumping and ventilation and to what extent does that fairly enter into the cost of mining a ton of coal? A. In the earlier days, as I have said, the pumping question was nil. The surface veins were frequently, in fact almost always, self-draining. The same was true in the early days with ventilation. It was what we call natural ventilation; there was no necessity for fans or any artificial method of forcing air through the earlier workings near the crop. It could be conducted there naturally, sometimes depending on the pressure of the atmosphere, the outlet being the intake and *vice versa*, the currents reversing themselves. As the mining extended, it has become necessary to put in expensive pumping plants to handle the increasing quantity of water. That was due to the larger areas opened and to the surface caves which let the rain flow in direct. I presume the average quanitty of water pumped in the Lackawanna region per ton of coal produced will be five, or six or seven tons of water, in some instances running up to fifteen or twenty, and in others down to practically nothing. Probably a fair average would be from five to seven tons. In the Northumberland region, where the regions in cross-section look like an inverted cross saw, the coal running up to high pinnacles and down into low valleys on very steep pitches, and while only one lift in a vein can be worked at one time and that the surface lift, immediately following the working the whole surface caving and the water from the side hills flowing right into the mine, the pumping has increased much faster than it has in the Northern Field, and

I presume the average water pumped per ton of coal produced there may be as high as fifteen or twenty tons, fifteen tons maybe. Some places in the region have had to be abandoned temporarily because of the excessive quantity of water.

Q. Take in our Northern Field broadly; as the mining develops, the pumping must be more and more? A. The pumping must be more and more, continually growing.

Q. Is it of sufficient moment to speak of fairly as a factor entering into, not only the present cost of mining a ton of coal, but the increases that are sure to be encountered, I mean by the miner? A. Yes, sir. Perhaps a fair idea of the increase in cost of pumping and ventilation might be obtained by taking the quantity of fuel consumption at the mines in the earlier days as compared to the present date. Seven to nine per cent. is the common, accepted supposed quantity used at the average mine to-day, as against one, two or three per cent. in the earlier days—as against nothing originally, practically, and probably fifteen years ago an average of five per cent. as against seven to-day. That might give a fair idea of the comparison.

Q. There has been a much larger proportion of sizes below prepared shipped in the last ten years than ever before, has there not? A. There has, yes, sir.

Q. Everywhere and universally, out of the total preparation, there is a larger per cent. of the sizes which we speak of as by-products; is not that right? A. Yes, sir.

Q. Are any of those sizes able to be manufactured at a profit? A. No, sir. No colliery could exist, if it manufactured all of its product into Pea or below. They are all by-products. They are redemption from what was formerly all waste. They have become marketable but, according to my understanding of the word merchantable, not merchantable to-day.

Q. What is your distinction between the words "marketable" and "merchantable?" A. I have had occasion to look that up very carefully in a lawsuit in our county

two years ago, and I find the Standard Dictionary says a merchant is one who buys and sells commodities as a business for profit. Therefore, I infer that a manufacturer who is also a merchant is one who manufactures commodities as a business and sells them for a profit.

Q. You make the distinction because the by-products cannot be sold at a profit? A. Yes, sir.

Q. So you call them marketable rather than merchantable? A. Yes, sir.

Q. Has the redemption of the material formerly going to the waste bank and the moneys secured by the sale of that material equaled the advance in the cost of the prepared sizes? A. I do not think it has. As applied to the entire region, there may be individual operations where it has offset the increased cost of manufacturing and mining.

Q. Of course, you understand I mean only the labor cost and material cost? A. I mean by that, such operations as had a large accumulation of by-products, waste of former days, alongside of their operation and have worked that old pile in conjunction with their present mining. The occasion for the largely increased quantity of small sizes sent to market in the last few years has been due to several causes. One of them has been the demand of the market for breaking down the large sizes, thereby increasing the waste, or the small sizes, and the other occasion has been the redemption from the former enormous piles of waste, which are very rapidly disappearing from the Northern Field.

Q. The effort on the part of the operator is to make what sizes? A. The preparel sizes, so-called, above Pea.

Q. Such as are made below, saving where they are taken from culm dumps by what are called washeries, are such as result in the manufacture of the prepared sizes? A. Yes, sir, and that has occasioned a great source of annoyance and expense to the operator, because of the violation of the specific terms of his original contract as lessee, and has resulted in losses that have cost a great deal

of money and has resulted, too, in very heavy verdicts, sometimes, against the lessee or operator.

Q. The old leases provided for what mesh to determine the difference between Pea and Chestnut coal? A. Some of them provided that all coal which went over a five-eighths inch mesh should be paid for at a royalty rate; the coal which went through a five-eighths inch mesh, in some leases not to be paid for, in other leases no disposition made as to whether it should be paid for or not. In the latter kind the courts have usually held, if it was sold by the operator, it must be paid for at some price; not always.

Q. What change, if any, has been made in that particular mesh so as to change the size of Chestnut on the one hand and Pea coal on the other, and what occasion was there for that change, if one has been made? A. The demand of the market required Chestnut coal to be made over a three-quarter inch mesh and Pea coal to be made—I am trusting my recollection now and have not freshened it recently—over a one-half inch mesh. I think I am correct about that.

Q. The effect of that change? What I want to get at is, the fact as to whether Pea coal is to-day a smaller or larger commodity than it was ten years ago, or fifteen years ago, or whenever this change was made? A. It is a larger commodity.

Q. Pea is larger and Chestnut is smaller? A. Yes, sir.

Q. They have converged in their requirements? A. sir; Pea coal has approached nearer a prepared size than it was years ago.

Q. And their market requirements has occasioned, as an item of cost and expense, not only in preparation but in adjustment with the leases now in existence? A. Yes, sir.

Q. Can you tell us the difference in the cost of mining a vein of three feet as compared with one of six? In other words, what would be the difference, in your judgment, in the expense incident to the opening and developing of

a vein of three feet as compared with six? A. Roughly speaking your cost inside would be double for a two-foot vein as compared to a six-foot vein.

Q. I said three feet. A. Probably fifty per cent. greater for the three-foot vein than the two foot, on account of the much larger area mined over to secure a ton of coal in the three foot than it is in the six foot, and on account of allowance for rock yardage which has to be made for the miner. It is different, depending sometimes upon the pitch of the vein, and where the rock has to be transported out of the mine, or can be gobbed and left inside.

Q. Working these thinner veins, to which you referred some time ago, in our section, the Northern Field, what extra allowances, if any, are to be made in view of the necessity for lifting up rock? A. The prices vary, in accordance with the character and hardness of the rock, possibly from five cents per lineal yard per inch of thickness, to ten or eleven cents per inch per lineal yard. The very thin veins also carry the miner an allowance for chamber rock taken up or down as measured on the rib per lineal yard, and that is as high as two dollars per lineal yard in some instances I know of for twelve inches of rock taken down.

Q. When you speak of a vein of coal, or a bed of coal, so many feet thick, does it mean that you have so many feet of coal? A. No sir. We speak of the vein as so many feet thick, including therein the impurities and laminations that are necessarily removed in mining the coal. For instance, sometimes certain veins carry over that worthless material from a few inches to possibly a foot and a half in thickness, that comes down in the mining of the coal, and has to be handled and removed by the miner. That is properly a part of the vein matter and is utterly worthless and thrown into the gob. The thickness of the vein does not exactly indicate the thickness of the minable coal in it.

Q. Does it ever indicate it? Have you ever known of a vein all the way through the columnar section to have pure carbon? A. That is depending on what you mean by pure

carbon. The coal that went to market in the earlier days was only considered pure coal if it carried eighty per cent. of the fixed carbon in lump. You could not sell lump which carried less than eighty per cent. To-day sixty-five per cent. is considered good coal.

Q. And is stated in the sixty-five per cent. contracts? A. Yes, sir.

Q. What I want to know is whether a vein of coal, we will say six feet thick, as an arbitrary figure, does that mean, or does it ever mean, six feet of coal, which goes to market, one hundred per cent. of it? A. It never means six feet of coal one hundred per cent. of which goes to market; no, sir.

Q. What does it mean? Tell us briefly. A. It means the total thickness of the vein or seam or bed—the coal bed is the proper term. Between is the permanent top rock and the permanent bottom rock, but the vein matter when necessarily first worked would fall at the mining of the coal.

Q. In our Northern Field are there any veins that do not have between the bottom rock and the top rock certain laminations or interlacings, depending on size, changeable in size, in character, and bed when working these thin veins of coal? A. There are no veins in the Northern Field taken as a whole that do not contain impurities ranging from a small percentage, four or five perhaps, to as high as fifty or sixty per cent. within the vein itself. There are very limited, small areas of particular veins where these impurities practically all disappear.

Q. Does the superficial acreage of a man's ownership of coal land give you any indication of the coal which lies thereunder? A. Not the least.

Q. And the extent thereof? A. Not the superficial area.

Q. Do the surface indications tell you? A. No, sir, nor the surface indications.

Q. In any given areas of size enough to warrant a colliery operation, what are the expected changes and variations that by experience such as we know you will see in the veins running through such areas? A. We anticipate

a certain area that will be faulty, that not discoverable positively until proven. Sometimes we encounter very much more changeable conditions because of faults in some localities, than we anticipated And others it would be less than anticipated, usually proved by men best qualified from their knowledge and experience before a colliery is built, either from bore holes, test pits, or adjoining mines or openings that show faults about as they have been found on the adjoining tracts. We often find incidents such as Mr. Norris stated yesterday, which I visted with him, where the Red Ash vein, which was running twenty-five or twenty-six feet in thickness, carrying twenty-three or twenty-four feet of good coal, in a few feet become so laminated and full of impurities that it was almost worthless and a few feet further become crushed out of existence

Q. What is the figure which as recognized by mining experts in our Northern Field that must be discounted, from the probable acreage of coal lands, to sort of anticipate and provide for these expected changes and interruptions of the vein matter? A. The figure I use usually as a generalism would be about ten per cent. I have known various engineers to use a less or greater allowance, depending, as I say, upon the information they can gather from the other mines about it, or from bore holes or test pits.

Q. Would you undertake to give us an expression of opinion as to the length of the life of the coal in our Northern Field? A. My judgment is that from practically one-third of the original thickness of minable coal now remaining there, that as much coal or more will be sent to market in all sizes that has been sent from the two-thirds mined out or mined over, and that the life at the present production would probably be somewhere from fifty to seventy-five years, the latter years of which the present production would not be kept up. It would be a constantly decreasing production. If, however, prices should warrant the working of still thinner seams than have been figured in our tabulation, that is seams below the two feet in thickness, the life would be prolonged.

Q. Would the prices have to be still further enhanced? A. They certainly would.

Q. In order to utilize veins of two feet and less? A. Yes, sir. At the present prices there are only isolated cases where veins that run less than thirty inches can be worked with any profit.

Q. As a part of the cost of coal, for which a mine operator is entitled to have pay and reasonable profit, would you say he ought to take into account the depreciation? A. I certainly would.

Q. The exhaustion of his capital? A. He certainly would.

Q. Is that point in these figures that you have been giving us? A. No, sir. In the estimates that have been given you nothing but the ordinary repairs, restoration of broken parts, and so on.

Q. The reports that are made each year of the mine inspectors give the list of accidents and catastrophes, do they not? A. Yes, sir.

Q. So that by reference to them you can see how they are distributed through the region, and are really a part of the expected hazards of the industry? A. Yes, sir, often followed by damage suits in which large sums are recovered for negligence.

Q. Not for negligence, but for preference by the jury for the plaintiff? A. We recently had a man who deliberately walked out to the head of the slope and put his head between the spokes of one of the wheels and was killed.

Q. I do not know whether I asked you, but can you tell us the year that the Pennsylvania Coal Company gravity was transformed into the Erie and Wyoming Valley Railroad? It was 1883, was it not? A. That is my recollection. I worked on it in 1883. I am not sure that the final transformation of the operation was completed until 1884 or 1885. We had to maintain the operation of the gravity road while the transformation was going on. I do not think the final change from gravity to steam was made until 1884 possibly.

Q. Have you ever considered the question of what proportion of the original deposit of coal in the Northern Field must lie undeveloped, at any rate unmined, unless the prices which are now prevalent materially increase? A. Yes, I have tried to arrive at a figure that would represent the part that would lie undeveloped, or unmined, if no greater prices are obtained. It is a very difficult matter to fix such figure for the whole anthracite region, and I do not know but it is safest to decline to do it.

Q. Is it a substantial per cent.? A. It is a substantial per cent.

Q. Without undertaking to give it? A. It depends upon how thin veins it is possible to work at certain prices.

Q. Could you tell us—I do not know whether you have ever considered it—the shrinkage as between the superficial coal acreage the Government has asked us for in this case, and the actual minable veins acreage underneath the surface, so as to tell us what that difference was, and apply it to the Northern Field, or have you never figured on that? Do you understand my question? A. I do not know that I quite catch it.

Q. The Government has asked us to present to them the coal acreages of the various companies, which of course means superficial acreage, surface acreage. What I am asking you is, have you ever considered how much less than the surface acreages are the minable vein acreages. They certainly do not equal it, do they? A. Nowhere near. The question involves a careful calculation of the areas in each region covered by each vein. For instance in the Southern Field the superficial——

Q. I am only asking you about the Northern Field. A. In the Northern Field the superficial area covered by the bottom vein in Lackawanna County, near Scranton, is 78.25 square miles. I doubt if even that bottom vein is minable at two feet in thickness over one-half that area. The area covered by the overlying veins decrease in proportion as the interval between them and the next

underlying vein. On the top or so-called eight foot vein over in Hyde Park there is only a few hundred acres which would be limited. That disappears entirely at Olyphant up to Leggetts Creek between Olyphant and Scranton. Those are the only two places that I know of where it exists in the county of Lackawanna. All I could do would be to approximate the area covered by all of the known veins by the area so reduced to an area that would be covered by all of them, so that it would not be over twenty per cent. of the seventy-eight square miles. Of course that is only an approximation. I have not made calculation enough to give that.

Q. Will you describe the differences and the variations if there are any, as between veins on the one tract and the same veins on an adjoining tract, and as between different parts of the same vein on the same tract? Presuming it is a tract of, we will say, three hundred or four hundred or five hundred acres. A. You do not even need to take a tract as large as that. On this thirty acre tract that was referred to by Mr. Norris at the Avondale——

Q. What I would like is in our county, and whether it is, if you know fairly so, typical of the entire county. A. The vein known as No. 3 Dunmore, which is the bottom Dunmore at Winton, appears there in the Mt. Jessup colliery, and the adjoining Sterrick's Creek colliery, and the adjoining Dolph colliery, an average of about nine feet in thickness, and probably averaging seven feet of marketable coal. On the adjoining, Dana tract, northerly up the valley, it pinches down to a variable thickness of from four and a half feet to six inches, and is proved to be absolutely unminable so far as attempted up to date. Another illustration of that same vein is furnished by the workings of the Pennsylvania Coal Company at Old Forge No. 1, adjacent to the Jermyn No. 1, and that adjacent to the Elliott-McClure and Company, Sibley breaker. The Red Ash vein, or Dunmore vein on the Old Forge No. 1 are practically one vein running about thirteen to eighteen feet in thickness, making from ten

to thirteen feet of coal. At the further, Jermyn mine, that separates into three splits, each one of them acquiring first a little extra thickness of coal. As you go on toward the St. John's breaker, which is a point really in between the Sibley and the Jermyn No. 1 and 2, these veins narrow down and have a wider interval of rock between them. When they cross the tract one of them is supposed to disappear entirely, except for a little thread, and the other two vary from twenty inches to forty-eight inches in thickness. One of them, you may recall, is the one that was spoken of in the Miles case 28.1 inches.

Q. What I would like to have you put into the record is the variations in the seam of coal, which, in developing the vein, you encounter, having no notice of it? Appreciable changes, I mean, which affect the quantity of merchantable coal which can be won from it, and how they will vary in the operation of a single colliery, and a single vein in a single colliery operation. A. The changes which occur in veins are frequently very radical. The bench that is coal in one place becomes, in ten or fifteen feet, bone or impure coal. Then you transform that into slate, with a mixture of sulphur and finally get solid rock. A notable incident of the variation in the character of the vein is the Clark vein in the Sibley territory, where the middle bench in some places is found to contain three to four feet of fairly good coal, and one hundred feet, or less from that, bone, to be absolutely worthless, laminations of solid rock, sulphur and bone.

Q. Is that a thing that can be determined by the purchaser of the tract from bore-hole investigation, or surface indications, or the development of adjoining tracts? A. No, sir, unless the bore-hole investigations were made so thoroughly and expensively that they would be almost prohibitive.

Q. It would not be disclosed by the character of bore-hole investigation that we are accustomed to pursue. A. No, sir, it would not. Those are surprises that await you in the development of the property.

Q. They are surprises you should anticipate, are they not? A. Yes, a man with experience in coal, if you investigate a certain number of that kind. Sometimes they are very much greater than his expectation, and overwhelm him.

Q. Can you give us briefly a statement of the veins in the Northern Field, and the way they lie? Their vertical position with reference to the surface. I mean, the distance of the first from the surface down, I mean, and then the distance between that and the next. A. I think I can. I have before me here a sheet prepared by the second geological survey report, dated in August, 1882, which shows the average columnar sections with intervals between the various beds as known at that date. There have been some investigations more recently in the northern end of the Northern Field that show slightly different. There are some little errors in naming the beds, particularly at Carbondale.

Q. Can you give me an illustration of these veins, and their vertical position, that would be fairly representative of, we will say, the Northern Field, or do they vary so you could not do that? A. They all contain spots where the coal is absolutely worthless and unworkable, or has been at any stage of the game so far, so it would perhaps be a little difficult to give anything but an approximate average columnar section through the strata.

Q. Give me the average, starting from the surface and going down. What is the first? A. It is very much easier to take from the bottom and come up for the reason that the surface vein only covers a little bit of territory. The bottom measures are the Dunmores, as called in Lackawanna County, or the bottom of Red Ash measures in the lower part of the Wyoming region, and the Lykens Valley, further south. At Carbondale, the north end of the basin, they usually are in three splits until you come further south to Olyphant in four; then on still further south, reduced to three splits, and finally near the southern end of the county come together as practi-

cally one vein, and just outside of the county again found in three or possibly four splits. The thickness varies from a few inches to as high perhaps as twenty feet of vein matter, containing from a few inches of coal to possibly sixteen feet. The interval between the Red Ash veins and the next veins above, is very variable, ranging from a few feet to possibly one hundred and twenty at some points. Next above the Red Ash, or Dunmore seams, we have the Clark veins, with a varying interval, as I have said, the Clark veins sometimes being found in one split, more often in two. This vein was confused by the geological survey report of 1883 at Carbondale, with the Mammoth Big, or G vein, the second vein above the Clark. The Clark vein was known at Carbondale as the Archbald or Carbondale bed, sometimes spoken of as the Carbondale top and bottom coal, the vein being separated there by strata and impurities from two to four feet in thickness. The next vein above the Clark is known in our county as the New County vein. It is only proved to be worked for a comparatively small area, interrupted by faults and rolls and thin spots, and was early supposed to be a split of the overlying or underlying veins. It is pinched down, for instance in the vicinity of Old Forge to a vein of about four and one-half feet, with a pretty uniform rock divider of twelve or fourteen inches between, that rock divider sometimes being pretty near coal, bone, that stuff being absolutely worthless. That vein, just after it leaves Lackawanna County, thickens out and becomes a vein of ten or eleven or twelve feet, and then divides again into two splits. The next vein above the New County is the so-called Big vein or G vein, or Grassy Island vein, and is probably the best and purest vein of coal that we have throughout the entire coal region. It was the bed that was worked most extensively in the early days, and only the best benches of it were then removed. The so-called mining bench and the blacksmith's bench was considered the best.

Q. It was called the Blacksmith's bench because of the

purity of the coal? A. It is a good forge coal comparatively free from sulphur—bright, bottly coal.

Q. By bottly coal, you mean what? A. It fractures like a glass bottle, with a glassy, sharp edge, and glassy surface, the kind that the purchaser likes to see in his bin. The interval, which I did not give you, between the New County vein—next below the Big—and the Big vein, varies from possibly twenty-five to one hundred and twenty-five feet at different points throughout the district. The Grassy Island vein disappears north, or about in the vicinity of Archbald, and is not found in the northern end of the region that I am aware of, unless it is in a little thin gap of a limited area, on some of the hilltops that I am not certain about. As you go upwards in the measure the area covered by each vein grows less and less. This Big vein is known as the Baltimore, in Luzerne County. Above the Big, or G vein, with an interval varying from a few feet to one hundred or one hundred and twenty-five, is found the rock bed running from four to six feet, or eight feet possibly in thickness, in some places, carrying probably an average of twenty or twenty-five per cent. of refuse in that distance. Above that, varying from fifteen feet to possibly sixty feet, is found the Diamond bed, one of the earlier veins worked, a vein from six to eight feet in thickness, usually pretty well mixed with stratifications of varying thickness and impurities, but considered a pretty good vein of coal by comparison. Above that we have a limited area, two or three beds known in Hyde Park as the Four, Five and Eight foot coals. Known at Olyphant in the reverse order as Olyphant Nos. 1, 2 and 3. We find in isolated spots in certain tracts where they have taken the name of the tract, as for instance the Hull vein on the Hull tract at Olyphant, which is the Four foot vein. The intervals between these three veins vary from forty to eighty feet, the surface vein covering the smallest area, being the thicker vein, sometimes as thick as ten feet, with fifteen to thirty per cent. of impurities.

Q. That is slate, bone and rock? A. Yes, sir. Worthless stuff. The deposits measured from the surface in Lackawanna County are probably in the neighborhood of a thousand feet, and that would make them about three hundred or four hundred feet below tide elevation at their lowest point. In the southern end of the country, I think they are being worked at about that elevation below tidewater. I might say that the Grassy vein and the Clark vein are sometimes confused by mining engineers, and we are not agreed positively as to the identity of the vein at certain points.

Q. Do you know the difference in tidal elevation between Wilkes-Barre and Scranton? A. Scranton is seven-hundred and fifty-four or seven hundred and fifty-six feet at the court house.

By JUDGE MOOT:

Q. Above tide? A. Above tide, yes, sir. I think Wilkes-Barre is about four hundred, but I cannot recall off-hand.

By MR. WARREN:

Q. Do you know what Carbondale is? A. Carbondale is not far from one thousand, the center of the valley.

Q. The grade of the Jefferson branch from Carbondale to Ararat Summit, that is the summit of the mountain, is very steep? A. Yes, sir, I cannot give you the exact figures on that. It is very steep.

At 12.50 P. M. a recess was taken until 2 P. M.

2 o'clock, P. M.

Present:—The Examiner. Messrs. McReynolds, Todd, Warren, Moot and Campbell.

Cross examination.

GEORGE E. STEVENSON, resumed:—

By MR. TODD:

Q. What is the estimated life of the mines, taken as a whole? I mean, in the Lehigh and Schuylkill region? You have stated what it was for the Wyoming region. A. I have made no estimate of the life of the entire anthracite coal field. In fact, the only estimate that I have ever heard of has been the one made by William Griffith, and I believe that was testified to by him early in this case. It was some years ago. I do not think I would dare attempt to repeat that from memory.

Q. Have you made an estimate of the Northern Field of the Wyoming region, as it is sometimes called? A. Yes, just in Lackawanna County, is all I have made or testified to, and I have made no estimate of the whole field.

Q. Your testimony was then as to the length of the life of the mines in the Lackawanna region? A. The Lackawanna region alone, yes, sir.

Q. As distinguished from what you might call the Wyoming division of the Northern Field? A. Yes, sir. My estimate this morning simply included the Lackawanna coal measures.

Q. What is the reputation among engineers? Is it to the effect that the Schuylkill or Southern region will outlast the Northern region? A. Oh, that is a self-evident proposition. In fact, any prophesy as to the time at which all the coal will be exhausted from the Southern region is only a little better than a guess at present, because of the fact that a very large quantity of it lies at lower levels than we have ever been able to work in at a profit up to date.

Q. I was not so much after the length estimated in years as I was as to the relative lives of the two regions and you say it is self-evident that the Schuylkill will be the longest lived? A. Yes, sir, no doubt of that in my opinion.

Q. I understood you to say that as much coal will be taken out of the remaining one-third of the Northern region which has not been mined as has been taken out of the two-thirds which has been mined over in the past? A. That is my opinion.

Q. How do you explain the difference in the productiveness? A. I think I outlined that in my testimony this morning, that the methods now pursued in mining the coal result in a larger quantity being recovered from the same area, or same cubical contents mined out of the veins. Then, in addition to that, it is only in comparatively recent years that there has been any salvage of the by-products, that is, the small sizes. Now we are practically saving everything down to stuff that will pass through an eighth of an inch mesh, or possibly three thirty-seconds of an inch mesh in some instances, and efforts are being made to utilize even that waste in the manufacture of briquettes, hardly on a successful commercial basis yet, but we have one plant that is doing that now and it is on the strength of all the by-products as well as on the improved methods of operation, which are tending all the time toward winning the largest possible quantity from the area mined over, that I base my assertion that there will be as much coal of all sizes sent to market from the remaining six or seven feet as came out of the twelve or thirteen feet that has been mined over. I did not mean to say that all other mining engineers in the district agree with me on that.

By MR. MCREYNOLDS:

Q. When did Buckwheat coal begin to be a marketable and valuable product? A. I think the Buckwheat No. 1 came into local use in the early 80's and was perhaps shipped to market during the middle 80's; Buckwheat No. 2 in the middle 90's and Buckwheat No. 3, the finest size

which now goes to market, either late in the 90's or the beginning of the present century. Those are presumptions. I could give you historically, from memoranda that I have, the dates at which it first appeared in the returns of the Girard estate. By access to figures which I could have in Scranton, I could give you the first returns of the various sizes from other collieries.

Q. Your Buckwheat No. 2 is sometimes called Rice coal and No. 3 is sometimes called Barley? A. Yes, sir.

Q. So all the sizes of coal below Pea coal have become merchantable, marketable and valuable products since about 1885? A. I cannot agree to that proposition as to the term merchantable, which I have defined, according to my understanding of it, this morning. Beginning with Pea coal, which perhaps was first recognized locally as early as 1868 ——

Q. My question concerned sizes below Pea.

(Question read as follows:—"Q. So all the sizes of coal below Pea coal have become merchantable, marketable and valuable products since about 1885?")

A. They have become marketable since 1885, but never at prices that would warrant their manufacture except in conjunction with the prepared sizes.

Q. That was not what I was asking. Prior to 1885 they were worthless by-products, from which the mines derived substantially nothing? A. That is true.

Q. Since that time they have had and now have a very considerable value in the aggregate? A. That is true.

Q. What proportion of the output of the mines in the Lackawanna region, taking them as a whole, when the coals are finally prepared for market consists of sizes below Pea? A. In the Northern Field, the Lackawanna County field, probably at the present day the production would show about eighty per cent. of Pea and prepared sizes and twenty per cent. of sizes below. As you go down toward the Southern Field, that percentage is changed, possibly, in the Shamokin region, dropping to fifty Pea and above and fifty per cent. below Pea. The softer nature of the coal and

the crushed condition it is found in those overturned basins materially affect the output of any colliery as to prepared sizes.

Q. So the net result is that, in that field, since 1885, from twenty to fifty per cent. of the output of the mines, prior to that time a worthless by-product, has become a valuable and merchantable product? A. A valuable and marketable product would be my qualification. I would like to couple with that answer, with your permission, the statement that that has not been accomplished without considerably increased cost to the operator for the installation of various improved machines for cleaning the smaller sizes and breaking them down, and also expenses incident to the operation of the mine.

Re-direct examination.

By MAJOR WARREN:

Q. Every pound of that valuable product, adopting the same adjective, costs what as compared with what you can get for it? A. Costs more to mine and manufacture than you can secure for it in the market.

By MR. MCREYNOLDS:

Q. What do you mean by costs more? Is it not absolutely necessary to make the small sizes in order to mine and produce the prepared sizes? A. It is perhaps necessary to manufacture a certain proportion of small sizes in conjunction with the larger sizes, that proportion having increased because of the demand of the market for breaking down the large sizes; but what I mean by saying that it has failed to bring a price in the market equivalent to the cost of mining and preparation is this, that the cost of mining and preparation figured upon the basis of the total tonnage produced, including the small sizes, result, we will assume, in an average figure of approximately, as an estimate, two dollars or two dollars and twenty-five cents a ton; the selling price of Pea and below has never netted the operator any such figure as that.

Q. The fact that these by-products are salable tends to

give a better return to the collieries than if they were not salable, does it not? A. Surely it does; but they have been made salable—the making of them salable entails extra expense on the part of the operator.

Q. Yes, but not to the extent of the return from their sales? A. I think not; no, sir, quite.

By MAJOR WARREN:

Q. What is the difference between them, just on that point Mr. McReynolds is asking you about? A. Of course, without all the detailed information, and it would require a tremendous amount of it to answer the question exactly—but I would approximately say this, that the recovery of the small sizes has probably cost the operator additional expense equivalent to perhaps fifty per cent. of the returns which he gets for the additional small sizes, something like that. It is an estimate, you know, from my general information and knowledge. Specifically it might work out somewhat differently.

GEORGE L. HOUSER, having been duly sworn, was examined as follows:—

By MAJOR WARREN:

Q. You are now the secretary, are you, of the Temple Iron Company? A. Yes, sir.

Q. Did you secure for me this paper which I now show you, being a paper dated Pottsville, Pa., April 21st, 1899, and addressed to Mr. Jos. S. Harris, president, Philadelphia, Pa., and apparently signed by R. C. Luther? A. Yes, sir.

(It is admitted that this signature is that of Mr. Luther, who is now dead.)

(Major Warren offered in evidence the report to Mr. Harris by Mr. Luther of his investigations of certain collieries offered the Temple Iron Company, as testified to by Mr. W. A. May, a witness called by the Pennsylvania Coal Company.)

(Paper marked "Temple Iron Company Exhibit No. 20, C. H. Guilbert, Examiner.")

By MAJOR WARREN:

Q. Have you made up a statement showing the cost per ton of mining and preparing coal for market at all collieries in which the Temple Iron Company is interested for the year 1899 and also for the year 1908, for the purpose of comparison of costs as between those two years? A. Yes, sir.

Q. I assume that that statement so prepared you know to be correct from the books and records of the company? A. Yes.

Q. Have you also made up a statement covering certain other matters which enter into the affairs of the company, as, for instance, the output per miner, the pay of miners, the number of days the collieries were idle certain years, the average number of days worked each year from 1899 to 1908, and certain other things that appear on these papers which I hand you? A. Yes.

Q. I assume they are correctly stated on those papers from the records of the company which you have consulted for the purpose of preparing them; is that right?

Q. Have you also prepared a statement showing the thickness of veins in all the collieries mined in 1898 and 1908, at each colliery, this in conjunction, I assume, with Mr. Hemelwright, your general superintendent? A. Yes, sir.

Q. And you and he uniting in that, you prepared them after his furnishing you certain information that he had had in hand therefor; is that correct? A. That is correct.

(Major Warren offered the three statements referred to in evidence. Marked respectively "Temple Iron Company Exhibit No. 21," "Temple Iron Company Exhibit No. 22," and "Temple Iron Company Exhibit No. 23, C. H. Guilbert, Examiner.")

Q. During all the years of the Temple operations, so far as you have knowledge of them, and you have had association with their operations, they have sold their coal under the sixty-five per cent. contract, so called, at their various breakers? A. Yes, sir.

Q. And the prices which you state upon these sheets as, for instance, the average price received for all sizes each year here, represents the price paid by the vendee under those contracts, the party you sold to each year; is that right? A. They do.

Q. And the percentage of sizes is taken from your colliery records both as to prepared and sizes below prepared? A. Yes, sir.

Q. In the statement upon one of these exhibits of the profits per ton, I note a deduction here of fifteen cents; that I assume is the sinking fund provided for in the mortgage of the Temple Iron Company, which has already appeared in the records here introduced by the Government? A. It is.

Q. Where any red ink appears, it means a loss, does it not? A. A loss.

Cross examination.

By MR. TODD:

Q. Had the Temple Iron Company, April 21st, 1899, taken over the operation of the Simpson and Watkins collieries? A. In 1899?

Q. The date of this communication, April 21st, 1899. A. Yes.

Q. Was Mr. Harris, who is addressed here as president, president of the Temple Iron Company?

MAJOR WARREN:—I object to that, because it was addressed from Pottsville by Mr. Luther and this gentleman was not a party to either the addressing or the addressee, and you are asking him, therefore, to state something which is not competent in my opinion. Further I object because the Government's exhibits, which we furnished them at their request, disclose that Mr. Harris at the date of this communication was a director of the Temple Iron Company, but not its president.

(Question read.)

A. No.

By MR. TODD:

Q. He was president of the —— A. Philadelphia and Reading Coal and Iron Company.

MR. TODD:—He was addressed there as president of the Philadelphia and Reading Coal and Iron Company.

MAJOR WARREN:—He was not there addressed as president of the Philadelphia and Reading Coal and Iron Company, he was just addressed as president.

JUDGE CAMPBELL:—The fact is, Mr. Todd, that Mr. Luther was a subordinate official of the Philadelphia and Reading Coal and Iron Company and made his report to his president.

MAJOR WARREN:—I object to that. Mr. Harris was a director of the Temple Iron Company and Mr. Harris was president of the Reading Company; the Reading Company was a stockholder in the Temple Iron Company. It was perfectly natural, therefore, that he, having confidence in his subordinate Philadelphia and Reading Coal and Iron Company employee, should have asked him to participate in these investigations. That is my reason for objecting to Judge Campbell's suggestion.

FRANK H. HEMELWRIGHT, having been duly sworn, was examined as follows:—

By MAJOR WARREN:

Q. Will you please tell me your residence? A. Jermyn, Pennsylvania.

Q. In the county of Lackawanna? A. Lackawanna.

Q. And in what is known as the northern portion of the Wyoming field, or the Lackawanna Valley portion of it? A. Yes.

Q. And there you have lived how long? A. Twenty-three years.

Q. How, if at all, did you become associated first with anthracite mining? A. I commenced work at the Black Diamond colliery at Luzerne, in Luzerne County.

Q. At what time of your life? A. I commenced work there at nine years of age.

Q. In what capacity? A. Slate picker.

Q. Briefly follow the various ways you have been associated with anthracite mining from that time to the present. A. I went to work in the mines about a year later and worked at that colliery altogether about six years.

Q. In what capacity? A. Door boy; driver; car runner. I then went to work for Simpson and Watkins.

Q. Where? A. At Edgerton colliery.

Q. Which is where? A. In Archbald borough, Lackawanna County.

Q. In what capacity? A. As driver in the mines.

Q. Your next position was what? A. I worked at all of the different positions around the mines, for Simpson and Watkins, for the next thirteen years.

Q. Where you ever foreman of a colliery? A. Yes, sir.

Q. What colliery? A. I was foreman at Edgerton and also of the Northwest colliery for Simpson and Watkins.

Q. Your present position is what under the Temple Iron Company operation of the various companies they control? A. General superintendent.

Q. That means you have to do with what? A. The operating.

Q. That is, the practical work of mining and preparing coal? A. The practical work of mining and preparing coal, yes, sir.

Q. All your coal since your occupancy of your present position, is sold under sixty-five per cent contracts to the different vendees and coal companies that are named in those various contracts? A. Yes, sir.

Q. And delivered on board the railroad cars at the lip-chutes of the breaker? A. Yes, sir.

Q. When you first got into their operations, or if not then, if you know from your investigation of the records and of the collieries themselves at a later date, tell us the average thickness of the seams or beds, or veins they were working in 1899? A. The average thickness of the

seams they worked in 1899 was six and forty-three one-hundredths feet.

Q. What is it, say, to-day? A. Three and twenty one-hundredths feet.

Q. That appears in one of the exhibits I have offered, which you assisted in preparing, does it not? A. Yes.

Q. In which you name each colliery operation and the beds or veins associated with each colliery operation? A. Yes, sir.

Q. Has there been any difference in the mining cost of coal in the same period? A. Yes, sir.

Q. Are you familiar with that mining cost? A. Yes, sir.

Q. It is a part of your duty, I assume, to have charge of the men connected with the operating at the collieries and, of course, to have knowledge of the rates of wages and also of the costs of material; in other words, of everything that has to do with the maintenance of the operation? A. Yes, sir.

Q. Did I understand you to say there has been a difference in the mining cost in that period? A. Yes, sir.

Q. Can you express that in a percentage that would fairly approximate the difference? A. Yes, sir.

MR. TODD:—Is not that expressed in the statement that you put in evidence?

(Question withdrawn.)

Q. In Exhibit No. I see a statement which reads, "Extent of restriction account of transportation since 1903, one hundred and sixty-nine days per year, all collieries." Just explain that. What do you mean by that? A. One hundred and sixty-nine days were lost, including all the collieries, for one year.

Q. In other words, the aggregate loss of all the operations? A. Of all the collieries, yes, sir.

Q. You do not know what the reasons were that occasioned the troubles in the transportation which represent that item, do you? That is, you do not know whether it is due to congested cars, storms on the road,

or anything which might do it, wrecks? You do not know what the causes were? A. No. They were days representing the restrictions on account of transportation.

Q. The occasion of it you do not have any knowledge of? A. No, sir.

Q. Did you have occasion to reconstruct the Harry E colliery, and by that I mean especially the breaker equipment, that is the equipment above ground, in the last few years? A. Yes, sir.

Q. When was that? A. In 1905.

Q. Have you ascertained what that breaker cost when it was originally constructed? A. Not when it was originally constructed, no, sir.

Q. Do you know what it would have cost if it had been built say ten years ago? A. It would have cost about $60,000.

Q. What did it cost when it was rebuilt in 1905? A. $108,000.

Q. That is an increased cost of about eighty per cent.? A. Yes.

Q. Was the character of the construction similar? A. Yes, sir.

Q. So that it fairly represents the increased cost of material and equipment at one time as compared with the previous date? A. Yes, sir.

Q. To what extent has pumping in connection with your operations changed, if any, within this same ten year period? A. Pumping has increased very materially. In fact, pumping and ventilation together, which we carry together, have increased two hundred and seven per cent.

Q. You are pumping about how many tons of water, would you say, to one ton of coal? A. I could not give that at all collieries. At one of our collieries in particular, I know we are pumping a little over twenty tons of water to one ton of coal hoisted.

Q. What particular colliery? A. Lackawanna colliery.

Q. What would be your estimate of about what pro-

portion of coal is in the bed that is to be won, I mean now of the remaining coal in connection with your operations? A. I would say about sixty per cent.

Q. Have you any figures to tell us what the sliding scale cost your company since its going into effect under the award of the Strike Commission? A. It costs us a little over $80,000 a year on the average since it went into effect; a little over $90,000, the last two years.

Q. What, if any, increase has there been in the cost of mules and the hay and grain in that same period? A. The cost of maintenance of mules has increased seventy-nine per cent.

Q. As you are progressing with your mining operations were the veins—take for instance 1907, as compared with 1907, to get it down to a concrete basis—were the veins you were mining in 1908 any harder or more difficult to mine than in 1907, or easier, or what would you say as to the difference, year by year as you are progressing? A. They are growing harder to mine and more expensive.

Q. Can that reasonably be anticipated as to the future development of mining in the operations with which you are familiar? A. Yes, sir.

Q. Take labor conditions there; for instance, since the 1st of April in this very current month, what decreased efficiency, if any, has there been in labor, or is there now in labor just at this very day? A. About thirty per cent. decrease in efficiency.

Q. In what way does that show itself, I mean? A. In decreased output from the different collieries.

Q. You are now awaiting some sort of a determination as to whether the men are going to continue work or not, generally through the Northern Field, are you not? A. Yes, sir.

Q. Has that yet been ascertained, how it is coming out? A. I think not.

Q. To what extent, if any, does that unrest affect the cost of mining coal such as you are mining nowadays? A. It will increase the cost about twenty-five per cent.

Q. To what extent, if any, has labor decreased in its efficiency, speaking broadly now, during the years since the assumption of work after the strike award of 1903? A. I should say about twenty per cent.

Q. The reduction of the hours, that is, of the maximum hours that you could work under the award of the Strike Commission, I mean, has that affected the mining cost? A. Yes.

Q. It has added to it, has it? A. It has added to it, yes, sir.

Cross examination.

By MR. TODD:

Q. Where does the coal which you ship from the Temple Iron Company go to? A. I do not know where it is shipped to. We turn it over to the different purchasing companies at our breaker and it is then shipped by their directions.

Q. Do they not give you directions as to where it is to be shipped? A. Yes. They possibly give our weighmaster directions; if they do, I am not familiar with it. It is entirely in their charge.

Q. You do not know? A. No, sir. It is immaterial to me.

Q. If anybody in your company knows, it is what employee? A. I doubt if any of them know where all the coal went.

Q. If anyone should know, who would be in a position to know? A. The only one that would know would be the shipping clerk at each colliery, and he would know about his own colliery only.

MAJOR WARREN:—Counsel for the Temple Iron Company desire to state that they have no further witnesses to call to-day; that two of the witnesses whom they expected would be here they have learned cannot come, owing, as it is represented to them, that there is illness in the family in the case of one and personal illness in the case of the other, and therefore I cannot go on with any

further testimony to-day. As far as I am personally concerned, I shall not be able to participate in the hearings next week, therefore I turn to the counsel representing other companies here and ask them to make such arrangements, if any, as they desire to make as to the taking of testimony next week. Whatever further evidence I desire to offer I shall offer at some date that will be fixed after next week's adjournment.

In behalf of the Reading Company, Judge Campbell desires to state that he will be ready to proceed on Tuesday, April the 27th, at 10.30 A. M.

Counsel for the Government understand that, in effect, the Examiner has been requested to adjourn these hearings until Tuesday, April 27th, and, in order that their attitude may be apparent upon the record, they state that they are ready to go ahead with this matter from day to day and ask counsel for the defendants to take notice of that fact. Counsel for the Government hold themselves ready, upon telegraphic notice or otherwise, to attend any hearings in the meantime.

(Adjourned until Tuesday, April 27th, 1909, 10.30 A. M., to meet at Room 324 Post Office Building, Philadelphia, Pa.)

Room 324, Federal Building, Philadelphia, Tuesday, April 27th, 1909, at 10.30 A. M.

Present:—The Examiner.

Counsel present—Messrs. McReynolds, Todd, Campbell and Moot.

TESTIMONY ON BEHALF OF THE READING COMPANY, PHILADELPHIA AND READING RAILWAY COMPANY, THE PHILADELPHIA AND READING COAL AND IRON COMPANY, AND OTHER DEFENDANTS.

It is agreed that the following may be treated as testified to by competent witnesses called by, or contained in documents introduced in evidence by, the defendants Reading Company, Philadephia and Reading Railway Company and The Philadelphia and Reading Coal and Iron Company, supplementing the statement concerning them and related corporations, set forth on pages 605 *et seq.* of Plaintiff's testimony, but subject to objections as to relevancy or materiality or competency, but not as to form or method of proof.

I.

May 24, 1880, The Circuit Court of the United States for the Eastern District of Pennsylvania entered an order in a certain suit in Equity, wherein Moses Taylor, a citizen of the State of New York, was Complainant and The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company were defendants, appointing Edwin M. Lewis, Franklin B. Gowen and Stephen A. Caldwell Receivers "of said corporations defendant, and of the railroad, real and personal property and estate of the said The Philadelphia and Reading Railroad Company, and of all the property, privileges, franchises and powers of the said The Philadelphia and Reading Railroad Company and of the said The

Philadelphia and Reading Coal and Iron Company of whatever kind or description or wheresoever situated," etc., and "that an injunction be issued against the defendants, and all persons claiming to act by, through or under them, or other persons, to restrain them from interfering with the said Receivers' taking possession and managing said property," etc.

February 14, 1883, an order was entered in said suit and in another suit in the same court wherein the Farmers and Mechanics National Bank was Complainant and the said Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company and others were defendants, on the petition of The Philadelphia and Reading Railroad Company and the Philadelphia and Reading Coal and Iron Company, "that the receivers surrender, transfer and hand-over" unto the Union Trust Company of Philadelphia, Trustee, the properties and premises in their hands.

May 16, 1884, a further order was entered in the said suit reciting "and it appearing from the report of the Master that the said Receivers have surrendered, transferred and handed over to The Philadelphia and Reading Railroad Company and to The Philadelphia and Reading Coal and Iron Company all the property, real and personal, in their possession, or under their control which they were directed to surrender and transfer to the said corporations by the decree of February 14, 1883, and that they have duly accounted, under the direction of the Master, etc., * * * that the said Edwin M. Lewis, Franklin B. Gowen and Stephen A. Caldwell, be and they are hereby relieved and discharged from the office of Receivers, etc."

II.

June 2, 1884, The Circuit Court of the United States for the Eastern District of Pennsylvania entered an order in another suit in equity wherein Henry C. Kelsey, a citizen of the State of New Jersey was complainant, and The Philadelphia and Reading Railroad Company and The

Philadelphia and Reading Coal and Iron Company and others were defendants, by which it appointed Edwin M. Lewis, Geo. deB. Keim and Stephen A. Caldwell Receivers of "said corporations defendant, and of all the railroads and canals owned leased or operated by the said The Philadelphia and Reading Railroad Company and of all the real and personal property of The Philadelphia and Reading Coal and Iron Company and of the said Philadelphia and Reading Railroad Company of whatever kind or description," etc., and "that an injunction be issued against the defendants or other persons claiming to act by or under them, and all other persons, to restrain them from interfering with the said Receivers and taking possession of and managing said property."

By due and apt proceedings and due appointment and order of the Court, Austin Corbin was appointed Receiver in lieu of said Edwin M. Lewis, then deceased, and thereafter, December 14, 1887, the then Receivers—Geo. deB. Keim, Stephen A. Caldwell and Austin Corbin—were, by an order entered in the said suit and in other suits then pending in the same Court, released and discharged from the office of Receivers for The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company. Whereupon, said Receivers surrendered and delivered up the property and premises and the possession and control thereof, respectively, to The Philadelphia and Reading Railroad Company and to The Philadelphia and Reading Coal and Iron Company.

III.

January 3, 1888, The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company, having resumed the possession, control and operation of their several properties, estates and franchises, free from the said injunction, executed severally the several Mortgages or Deeds of Trust below mentioned, wherein each conveyed separately, but in the same instrument, unto The Pennsylvania Company for

Insurances on Lives and Granting Annuities, the several properties, estates and franchises therein mentioned, that is to say:—

1. A General Mortgage made to secure an issue of bonds of The Philadelphia and Reading Railroad Company to the amount of $100,000,000., bearing interest.

2. Another Mortgage, specifically made subject to the lien of the General Mortgage above mentioned, called "First Preference Income Mortgage," to secure an issue of the bonds of The Philadelphia and Reading Railroad Company to the amount of $25,000,000.

3. Another Mortgage, specifically made subject to the lien of the two preceding mortgages above mentioned in the order of their succession and priority, called "Second Preference Income Mortgage," to secure an issue of bonds of The Philadelphia and Reading Railroad Company to the amount of $26,140,518.

4. Another Mortgage, made specifically subject to the three mortgages above mentioned, in the order of their succession and priority respectively, called "Third Preference Income Mortgage," to secure an issue of the bonds of The Philadelphia and Reading Railroad Company, to an amount to be thereafter determined by the Board of Managers of the said The Philadelphia and Reading Railroad Company, in accordance with the terms and limitations expressed and limited in the said "Third Preference Income Mortgage."

IV.

Default having been made by the said The Philadelphia and Reading Railroad Company in respect of certain of its obligations, February 20, 1893, the Circuit Court of the United States for the Eastern District of Pennsylvania entered an order in a certain suit in equity wherein Thomas C. Platt, a citizen of the State of New York,

was complainant, and The Philadelphia and Reading Railroad Company and The Philadelphia and Reading Coal and Iron Company and others were defendants, appointing Archibald A. McLeod, Edward M. Paxson and Elisha P. Wilbur receivers "of said corporations and all the railroads and canals owned, leased or operated by the said The Philadelphia and Reading Railroad Company, and all the real and personal property of the said The Philadelphia and Reading Coal and Iron Company and of the said The Philadelphia and Reading Railroad Company of whatever kind and description and wheresoever situated," etc., and further ordering and directing that "an injunction be issued against the defendants and all other persons claiming to act by, through or under them, and all other persons to restrain them from interfering with the said Receivers, taking possession of, and managing the said property," etc.

Thereafter, by due and apt proceedings and due appointments and orders of the Court, entered in the said suit from time to time, Joseph S. Harris was appointed Receiver in place and stead of the said Archibald A. McLeod, who had resigned, and later John Lowber Welsh was appointed Receiver in place and stead of Elisha P. Wilbur, who had resigned.

V.

A Bill in Equity was exhibited in the said Circuit Court of the United States for the Eastern District of Pennsylvania by the said The Pennsylvania Company for Insurances on Lives and Granting Annuities, respecting the property and premises so in the hands and possession of the said Receivers so appointed by the said Court, as aforesaid, setting up and describing the said General Mortgage of January 3, 1888, the default of the said The Philadelphia and Reading Railroad Company to pay the moneys, or some of them, secured to be paid by the said bonds so issued by The Philadelphia and Reading Railroad Company, and by the said General Mortgage or Deed

of Trust, praying the Court, among other things, to ascertain and fix the amount due and to become due to the holders of the said issue of bonds, to pronounce judgment for the same and in default of payment to order and direct the sale by the said Trustee of the said property and premises of the said The Philadelphia and Reading Railroad Company and of the said The Philadelphia and Reading Coal and Iron Company, so mortgaged, pledged and conveyed in and by the said General Mortgage of January 3, 1888.

VI.

Pending the order, judgment and decree of the said Court, pursuant to the prayers for relief set forth in the said last above-mentioned Bill of Complaint, the holders of divers of the bonds and obligations of the said The Philadelphia and Reading Railroad Company, and of the shares of the capital stock of the said Company, appointed a Committee to represent them severally in the event of the decree then anticipated to be speedily entered in the said suit, for the sale of the said properties and premises of the said defendants, The Philadelphia and Reading Railroad Company and the said The Philadelphia and Reading Coal and Iron Company, and the foreclosure of their equity of redemption therein.

VII.

May 1, 1896, a decree was entered in the said Court in the said suit, wherein The Pennsylvania Company for Insurances on Lives and Granting Annuities was Plaintiff and The Philadelphia and Reading Railroad Company; The Philadelphia and Reading Coal and Iron Company; Thomas C. Platt, the Complainant in the suit above mentioned; Edward M. Paxson, Joseph S. Harris and J. Lowber Welsh, the said Receivers of the said compaines so appointed as aforesaid and others, were defendants, reciting the execution and delivery of the said above mentioned General Mortgage and of the several income mortgages above mentioned and the execution and delivery of

the said several issues of the bonds of the said The Philadelphia and Reading Railroad Company secured by the said several mortgages; the default of The Philadelphia and Reading Railroad Company in the payment of interest upon the said issue of General Mortgage Bonds, etc., and reciting, in Paragraph XX, the amount outstanding and unpaid of certificates of the said Receivers issued pursuant to the orders of the Court in the said cases then pending, wherein it was, among other things, ordered, adjudged and decreed that the properties, premises and franchises of every description, described in the said General Mortgage, or by the said decree adjudged to have become subject thereto, except the property sold since the date of said mortgage under the powers therein reserved should be sold as thereinafter directed, and thereafter barring and foreclosing the equity of redemption of the said mortgages and all persons claiming under them, or either of them.

It was, in the said decree, directed that:—

1. Such sale may and shall be made by The Pennsylvania Company for Insurances on Lives and Granting Annuities, and that on an order confirming such sale and upon the payment or settlement of the purchase price, the Trustees should grant and convey the property sold to the purchaser or purchasers, and execute and deliver a proper deed or deeds of conveyance thereof.

2. That the mortgaged property of The Philadelphia and Reading Railroad Company, including all property and credits acquired by the Receivers from the operation thereof, and that the mortgaged property of The Philadelphia and Reading Coal and Iron Company, including all property and credits acquired by the Receivers from the operation thereof, and the entire property pledged to the Complainant by the Reconstruction Trustees, as set forth in the bill of complaint in said case, should be sold severally and respectfully in each case as a whole, subject, however, to the right of a majority in interest of the General Mortgage bonds outstanding by requisition in writ-

ing to be delivered to the Trustee at any time before the sale, to direct the Trustee to sell such properties in such parcels as they may deem best.

3. The fact of purchase and acceptance of the deed or deeds by the purchaser or purchasers shall not be construed as an election to accept any contract, agreement or term sold with the railroads and other property and franchises, which within ninety days after the delivery of the deed he shall not have elected to assume.

VIII.

Amongst the leasehold interests of the Railroad Company so sold, which were not taken and accepted by the purchasers, were the leases of the Catawissa Railroad Company, the Mine Hill and Schuylkill Haven Railroad Company and the Little Schuylkill Navigation Railroad and Coal Company, whose lines included the line of the East Mahanoy Railroad. Subsequently the East Mahanoy Railroad Company made a new lease to the said Little Schuylkill Navigation, Railroad and Coal Company, which afterwards made a new lease of its lines, including its said leased line, directly to the defendant, Philadelphia and Reading Railway Company, which also took and now holds new leases of their lines from the Catawissa Railroad Company and the Mine Hill and Schuylkill Haven Railway Company. The said leased lines of railroad, now forming part of the Railway Company's system, were therefore, acquired by it directly and not through the said decree of foreclosure or the sales made thereunder.

IX.

1. North Pennsylvania Railroad Company, Delaware and Bound Brook Railroad Company, and the Central Railroad Company of New Jersey, made an agreement dated March 30, 1876, reciting, among other things:—

"WHEREAS, The parties to these presents are desirous of opening a new line of railroad for trade and travel be-

tween the cities of New York and Philadelphia, to be known as The New York and Philadelphia New Line, which said line is to be composed of the North Pennsylvania Railroad from Berks street station, Philadelphia, to Jenkintown, and of the branch railroad from Jenkintown to the middle of the Delaware river, southward of Yardleyville, being, together, twenty-eight and six-tenths (28,6/10) miles, belonging to the parties of the first part; of the Delaware and Bound Brook Railroad, extending from said point in the Delaware River to a point in the Central Railroad of New Jersey west of Bound Brook, being twenty-seven (27) miles, belonging to the parties of the second part; and the Central Railroad of New Jersey, extending from said point to the Hudson river at Jersey City, and also one mile by ferry from Jersey City to New York, being, together, thirty two and eight-tenths (32 8/10) miles, belonging to the parties of the third part; making together a continuous line of railroad and ferry eighty eight and four-tenths (88,4/10) miles in length;"

in and by which it was agreed by the several parties:

"*First.*—That they will, in good faith, open the said line as a through route between New York and Philadelphia and places east and west of the said points, and operate the said line as if the same were under one ownership; and no diversion of business shall be allowed or encouraged to adjacent roads competing with any portion of the said line, but all business shall, as far as possible, be confined to and transacted over the entire line."

"*Second.*—The several parties hereto shall, at their own cost and charges, complete, maintain, and perpetuate their several portions of railroad, and keep the same in first class order and repair and always in condition for efficient use. They shall severally furnish all the tracks, sidings, passenger and freight houses, engine houses, water stations, shops, and other facilities required for the prompt transaction of the business over their several portions of the

said railroad line, and shall increase the same from time to time as required by the increasing business."

"*Third.*—Each party shall furnish its proportion of rolling stock and equipment of all kinds required for the business of the line according to the mileage of railroad controlled by them; shall maintain the same in good order and condition; and shall increase the same from time to time as required by the increasing business.

In order to secure a proper adjustment of the engine and car service, regular accounts of the same shall be kept and adjusted monthly at fair rates to be agreed upon from time to time; and any party deficient in furnishing its proportion shall pay as above to the parties supplying such deficiency.

* * * * * * *

"*Fifteenth.*—The duration of this contract shall be for and during the continuation of the charters of the said companies, and of any renewals or extensions of the same, and no alteration shall be made in these articles except by the consent of all the parties hereto."

2. After the making of the said agreement the said North Pennsylvania Railroad Company and the said Delaware and Bound Brook Railroad Company, severally made leases of their respective lines of railroad, branches and appurtenances to The Philadelphia and Reading Railroad Company, which thereby assumed the obligations of the said "New York and Philadelphia New Line" agreement. The said leasehold interests so acquired, were sold and conveyed pursuant to the said decree and became vested in the defendant Philadelphia and Reading Railway Company, which as the successor of the said parties, is a party to all of the provisions of the said "New York and Philadelphia New Line Agreement."

X

1. June 13, 1898, The Baltimore and Ohio Railroad Company, the Philadelphia and Reading Railway Company, the Central Railroad Company of New Jersey, The Staten Island Rapid Transit Railroad Company and The Baltimore

and New York Railroad Company entered into an agreement, "for the purpose of facilitating the interchange of railroad traffic of every kind and nature over the "New Line" hereby established, wherein, among other things, it was covenanted:—

"ARTICLE ONE.—The lines of the Baltimore Companies, extending from the city of Washington, through the city of Baltimore and into the city of Philadelphia, by way of East Side Junction to Park Junction, in the said city of Philadelphia; the lines of the Reading Companies, extending from the said Park Junction in the city of Philadelphia to Bound Brook Junction, N. J.; the line of the Central Company, extending from Bound Brook Junction aforesaid to the waters of New York Bay at Jersey City; and the lines of the Staten Island Companies, extending from Cranford Junction, N. J., to the waters of New York Bay at St. George, Staten Island, N. Y., shall be used as a system of connecting lines of railroad forming a through route, hereinafter in this agreement designated as the "New Line" for the carriage of railway traffic, and the said term "New Line," whenever and as often as the same shall be hereinafter mentioned, shall be held and taken to mean and refer to the system of connecting lines of railroad in this article specifically defined and described."

"ARTICLE TWO.—All traffic, by whomsoever secured, passing from any point on the New Line to any other point on the New Line, shall be shipped and consigned via the New Line; all traffic passing from points beyond the New Line to any point on the New Line, but not beyond, shall be shipped and consigned via the New Line; all other traffic secured by either of the parties hereto, shipped from any point beyond the New Line to any point beyond the New Line in the opposite direction which can be reached by way of the New Line, shall be consigned over the whole of the New Line, so far as the interests of the parties hereto respectively will allow. It being the purpose hereof to provide that each of the parties hereto shall give the preference to the lines of the other parties hereto as far as possible in all cases under like circumstances.

It is understood that the obligation of the Staten Island Companies under this article shall apply only so far as they can properly control the routing of their traffic."

"ARTICLE THREE.—Traffic secured by any party hereto for the said New Line shall not be diverted by any other party from the route designated by the party securing the same, and such traffic shall, when placed in transit upon the said New Line, or delivered or offered for transportation upon the same, be moved with promptness and dispatch over the several portions thereof by the companies operating the respective portions of the same, and the empty cars pertaining to such traffic shall be moved or returned with the same promptness and dispatch; it being understood and agreed that in passing between points of the said New Line there shall be no change of cars for through passenger service nor break of bulk in loaded cars tendered for transportation."

"ARTICLE FOUR.—All freight traffic over the New Line, via either Jersey City or St. George, Staten Island, N. Y., from New York, or from the waters of New York Bay, or from points beyond the said termini, or *vice versa*, also all passenger traffic over the New Line from or via Jersey City or from New York, or from the waters of New York Bay, or from points beyond the said termini to Baltimore or points beyond, or *vice versa*, shall be considered as through traffic, and all other traffic shall be considered as local traffic.

Unless otherwise specifically defined, the term "traffic" whenever used in this agreement, shall be held as embracing passenger, merchandise, coal, express, and all kinds of railroad traffic."

* * * * * * *

ARTICLE SIX.—Adequate terminal facilities on the waters of New York Bay for all traffic over the New Line shall be provided as follows:—

(1) The Central Company shall provide for passenger purposes the customary terminal facilities both at Jersey City and New York, embracing the transferring of the pas-

sengers over its Liberty Street Ferry, the selling of tickets, the checking and transferring of ordinary baggage at and between these points; it being agreed that, for such terminal service, a fixed arbitrary of four cents per passenger shall be assigned the Central Company before the regular division of the through fares are made. The fixed arbitrary, however, shall not apply to emigrant travel transferred direct from Ellis Island or elsewhere to Jersey City, for which special provision, based on actual expense incurred, shall be made from time to time.

(2) The Central Company shall provide the terminal facilities essential for the handling at Jersey City of cars containing, via Jersey City, joint freight traffic, excepting bituminous coal and coke, embraced in which service shall be the transfer of freight cars to and from the car floats, which car floats may be provided by any of the parties hereto, each for its own business, the Central Company to be assigned, as its proportion of the customary three cents per one hundred pounds New York Harbor terminal allowance, one cent per one hundred pounds, and the company which furnishes car floats and power to move them, two cents per one hundred pounds; in the event, however, of the Central Company performing the entire terminal service at and between Jersey City and New York, including the handling, housing, and manifesting, it shall have assigned to it the entire customary New York Harbor terminal of three cents per one hundred pounds.

(3) For such express service as is operated by or in the interest of the Baltimore Companies, the Central Company shall provide yard storage room at Jersey City, and shall promptly transfer the assigned express cars between the passenger train buildings at Jersey City and the designated points for loading and unloading in Jersey City; it being understood that the Baltimore Companies' express line will load and unload its own express matter, and provide its own warehouse and stable facilities at Jersey City, the Central Company agreeing at a fair rental to provide land on which to erect the same; it being also understood and agreed that the Baltimore Companies' express line shall be charged the

usual ferry rates collected from other express companies between Jersey City and New York.

(4) The Baltimore Companies, either directly or through the said Staten Island Companies, shall provide adequate terminal facilities in New York and elsewhere on the waters of New York Bay, excepting at Jersey City, for the handling of the general freight traffic covered by the provisions of this agreement, when consigned via the Staten Island Companies' lines.

ARTICLE SEVEN.—(1) A sufficient number of cars of approved uniform standard and color for the proper handling of the through passenger, mail, and express traffic over the New Line between New York, Baltimore, and Washington shall be furnished in the following proportions:—

The Baltimore Companies, fifty-seven and eighty-five one hundredths per cent.

The Reading Companies, twenty-seven and seventy-seven one hundredths per cent.

The Central Company, fourteen and thirty-eight one hundredths per cent.

(2) Each company shall receive and pay the customary mileage charges for passenger, mail, express, and freight cars.

* * * * * * *

ARTICLE FOURTEEN.—It being the intention of the Baltimore Companies and the Reading Companies, parties hereto, that this contract, and two certain other contracts bearing even date herewith and simultaneously executed, one thereof being between the Baltimore and Ohio Railroad Company, the Western Maryland Railroad Company, and the Philadelphia and Reading Railway Company, providing for the interchange of traffic by way of Cherry Run and Shippensburg, and the other thereof being a contract between the Schuylkill River East Side Railroad Company (in which the other Baltimore Companies have joined) of the one part, and the Philadelphia and Reading Railway Company of the other part, granting to the latter company the certain rights and privileges on the tracks of the former company therein men-

tioned and set forth, shall form a series of contracts concurrently negotiated and be conterminable, and that this contract shall continue in effect only during the continuance of both of the others of said series of contracts simultaneously executed as aforesaid. This contract shall take effect as of the first day of June, 1898, and shall continue in force and effect for the period of one year from the date hereof, and thereafter until terminated by either party on giving sixty days' notice to the others of its purpose to withdraw from the same, unless this contract shall be sooner determined on notice pursuant to the provisions of both or either of the other contracts of the said series."

(NOTE.—The contract referred to in Article Fourteen, between the Schuylkill River East Side Railroad Company and others, giving certain rights to the Philadelphia and Reading Railway Company is not material to be considered in this suit.)

On the same day—June 13, 1898,—the Baltimore and Ohio Railroad Company, the Western Maryland Railroad Company and the Philadelphia and Reading Railway Company entered into an agreement "for the purpose of facilitating the interchange of railroad traffic of every kind and nature over the line hereby established and hereinafter described as the 'Shippensburg route,'" wherein it was, among other things, covenanted:—

"ARTICLE ONE.—That the lines of the Baltimore Company, extending westward from Cherry Run, in West Virginia, and its connections, including the lines of the West Virginia Central and Pittsburgh Railway Company, and the line of the Maryland Company, extending from Cherry Run, W. Va., to Shippensburg, Pa., and the lines of the Reading Company, with their connections, extending from Shippensburg to various points in Pennsylvania and New Jersey, shall be used by the parties hereto as a system of connecting lines of railroad forming a through route for the interchange of freight traffic, to be known as the Shippensburg Route."

"ARTICLE TWO.—All freight traffic that may be secured by any of the parties hereto and that shall be routed b-

them or any of them by way of Shippensburg and Cherry Run, or *vice versa*, shall be shipped, consigned, and transported over and by way of the said line; and no such traffic so secured by any party hereto and shipped and consigned by way of the said line shall be diverted by any other party hereto from the route designated by the party securing the same, and such traffic, when placed in transit on the said line, or delivered or offered for transportation over the same, shall be moved with promptness and dispatch over the several portions thereof by the companies operating the respective portions of the same, and the empty cars pertaining to such traffic shall be moved or returned with the same promptness and dispatch."

"ARTICLE THREE.—The Baltimore Company shall forward by way of the said line all freight traffic which may originate on its line or its connections west of Cherry Run requiring the use of the Reading Company's terminal tracks or other facilities for delivery or transhipment."

"ARTICLE FOUR.—The Baltimore Company shall at all times give shippers of lumber, bituminous coal and coke, and such other traffic as may be shipped by way of said route, the same published tariff rates accorded to any shippers over its own line; shippers by way of said route to Port Reading, N. J., to be accorded like rates to those published by the Baltimore Company for like shipments over its own line to St. George, Staten Island; the customary agreed differential, if any, between the ports to be recognized and applied. Shippers over said route to Philadelphia, including Port Richmond, to be accorded like rates to those published by the Baltimore Company for like shipments over its own line to Philadelphia, including Jackson Street wharf. Rates on coal and coke, when for shipment over the piers at Port Richmond or Port Reading, after deducting port-shipping charge of fifteen cents per ton, shall be divided between the parties hereto in proportion to the actual miles hauled by each."

"ARTICLE FIVE.—The Reading Company shall forward

by way of said Shippensburg Route all freight traffic which may originate on its lines, and be by it controlled, when destined to any point on the line of the Baltimore Company east of and including Parkersburg, Bellaire, Wheeling, Pittsburgh, and Allegheny, to all other points on the lines of the Baltimore Company and its affiliated roads, The Baltimore and Ohio South-Western, the Pittsburgh and Western, and the Cleveland Terminal Valley, when requiring delivery on the tracks of the said roads."

"ARTICLE SIX.—The Reading Company shall at all times enable the Baltimore Company to give shippers of lumber, coal, and coke and other traffic located on the lines of the Baltimore Company and its connections west of Cherry Run, as favorable published tariff rates as are made on the like traffic by way of the Baltimore Company's competitors from contiguous or corresponding territory when destined to any point on the Reading Compny's lines or connections."

"ARTICLE SEVEN.—This agreement shall take effect as of the first day of June, 1898, and continue in effect one year, and thereafter until any of the parties hereto shall have given thirty days' notice in writing of its desire to terminate the same."

XI.

April 1st, 1901, Reading Company, defendant herein, made and delivered a certain collateral mortgage or Deed of Trust to The Pennsylvania Company for Insurances on Lives and Granting Annuities, whereby it assigned, transferred and pledged in addition to the certain other securities thereunder 145,000 shares of the Capital Stock of the Central Railroad Company of New Jersey, of the par value of one hundred dollars each, being a majority of the whole capital stock of the said Central Railroad Company of New Jersey, in trust, however, to secure the payment of the principal and interest of the certain issue of the bonds of Reading Company therein recited and men-

tioned, in which said instrument it was, among other things, provided that:—

"ARTICLE ONE, SECTION 1.—All bonds to be secured hereby, from time to time, shall be executed, and shall be delivered by the Reading Company to the Trustee for certification, and thereupon, as provided in this Article One, and not otherwise, the Trustee shall certify and deliver the same. The aggregate amount of the bonds issued and outstanding under this Indenture shall never at any one time exceed the principal sum of forty-five million dollars ($45,000,000).

"Only such bonds as shall bear thereon a certificate substantially in the form hereinbefore recited, duly executed by the Trustee, shall be secured by this Indenture, or shall be entitled to any lien or benefit hereunder; and every such certificate of the Trustee, upon any bond executed in behalf of the Reading Company, shall be conclusive evidence that the bond so certified has been duly issued hereunder, and is entitled to the benefit of the trust hereby created.

"Before certifying or delivering any coupon bond hereby secured, the Trustee shall cut off, and shall cancel, all coupons thereof then matured.

"SEC. 2.—Of the bonds authorized to be issued under and secured by this Indenture, bonds to the amount of twenty-three million dollars ($23,000,000) immediately upon the execution or delivery hereof, or as soon as may be thereafter, in advance of any record or registration hereof, and without any further action on the part of the Reading Company, shall by the Trustee be certified and delivered to the Reading Company; and the Reading Company shall not be accountable hereunder to the Trustee for or in respect of the bonds so delivered or the disposition or use thereof."

* * * * * * *

"ARTICLE TWO, SECTION 1.—Duly and punctually the Reading Company will pay the principal and interest of every bond issued and secured hereunder, without deduction from either principal or interest, for any tax or taxes

or stamp duties imposed by the United States, or any State or County or Municipality thereof, which the Reading Company may be required to pay, or to retain therefrom, under or by reason of any present or future law.

"Duly and punctually the Reading Company will pay the principal and interest of every bond or obligation at any time having a lien superior to the lien hereof, and in like manner every Company, a majority of whose shares are pledged hereunder, duly and punctually will pay the principal and interest of every bond or obligation on, or affecting, any of its property."

* * * * * * *

"SECTION 4.—If any company of whose capital stock the greater part shall have been pledged hereunder, at any time while the greater part of the capital stock of such company shall be pledged hereunder, shall fail to pay all taxes, assessments and charges lawfully imposed upon the property of such company or upon the income and profits thereof, then it, the Reading Company, upon request in writing by the Trustee, or by the holders of ten per cent. in amount of the bonds hereby secured and then outstanding, itself will pay and discharge the same; provided, however, that nothing in this section contained shall require the Reading Company to pay any such tax, assessment or charge, so long as in good faith the Reading Company shall contest the validity thereof."

* * * * * * *

"ARTICLE THREE.—SECTION 1.—The Trustee may do whatever may be necessary for the purpose of maintaining or preserving the corporate existence of any company the greater part of whose shares shall have been pledged hereunder, and for such purposes, from time to time, it may sell, assign, transfer and deliver so many shares of the stock of the several companies as may be necessary to qualify persons to act as directors of, or in any other official relation to, said companies; provided, however, that under this provision no transfer shall be made which shall reduce the amount of stock in any company held by

the Trustee, so as to render it less than a controlling interest in such stock; and in every case the Trustee may make such arrangements as it shall deem necessary for the protection of the trust hereunder.

"The Trustee may cause to be transferred into its own name, as Trustee hereunder, all shares of stock delivered and assigned to it, or which at any time hereafter may be delivered and assigned to it as security hereunder.

"SEC. 2.—Unless and until a Receiver shall have entered into possession of the property of the Reading Company or of any of the companies whose capital stock is pledged hereunder, the Trustee shall not collect or be entitled to collect the dividends on any shares of stock now or hereafter pledged with, or assigned to, the Trustee under this Indenture, but the Reading Company shall be entitled to receive all dividends on all shares of stock which shall have been transferred to or pledged with the Trustees pursuant to any provision of this Indenture or which shall be subject to the lien hereof; and from time to time (subject to the covenants in respect thereof herein contained), upon the request of the Reading Company the Trustee shall deliver orders in favor of the Reading Company, or its nominees, for the payment of dividends, and the Reading Company may collect such dividends, but not by any proceeding which the Trustee shall deem to be prejudicial to the trusts hereunder; and the Trustee at once shall pay over to the Reading Company any dividends which may be collected or received by it.

"Unless a Receiver shall have entered into possession of the property of the Reading Company or of any of the companies whose capital stock or any part thereof is pledged hereunder, or unless the Trustees after default shall have elected to exercise the powers relating to default herein contained, the Reading Company shall have a right to vote upon all the shares of stock pledged hereunder for all purposes not inconsistent with the provisions or purposes of this Indenture and with the same force and effect as though such pledge had not been made; and from time to time, upon demand of the Reading Com-

pany, the Trustee forthwith shall execute and deliver, or shall cause to be executed and delivered, to the Reading Company, or to its nominees, suitable powers of attorney or proxies to vote upon any shares of stock which shall have been transferred into the name of the Trustee.

"In case, at any time, any company of whose capital stock the greater part shall be held by the Trustee hereunder, shall be dissolved or liquidated, or in case all or any of the property of any such company shall be sold upon the insolvency of such company at any judicial or other sale, the Trustee may take such steps as in its discretion it shall deem advisable to protect its interests hereunder in respect of any stock subject to the lien hereof, and for that purpose it may join in any plan of reorganization in respect of any stocks and may accept new securities issued in exchange therefor under such plan.

"The Reading Company covenants that, on demand of the Trustee, it, the Reading Company, forthwith will pay, or will satisfactorily provide for, all expenditures incurred by the Trustee under any of the provisions of this Section, including all sums required to obtain and perfect the ownership and title to any property which the Trustee shall purchase or cause to be purchased pursuant to the provisions of this Section, and in case the Reading Company shall fail so to do, then, without impairment of, or prejudice to, any of its rights hereunder by reason of the default of the Reading Company, the Trustee, in its discretion, may advance all such expenses and other moneys required, or may procure such advances to be made by others, and for such advances made by the Trustee, or others at its request, with interest thereon, the Trustee shall have a lien prior to these presents upon all the stocks, claims or indebtedness in respect of which such advances shall have been made, and the proceeds thereof and any property acquired therewith.

"In case the Trustee shall not purchase or cause to be purchased the property sold at any such sale, and shall not join in a plan of reorganization as aforesaid in respect of such stock, then the Trustee shall receive any portion

of the proceeds of the sale accruing on the securities by it held hereunder, and such proceeds, from time to time, shall be used by the Trustee in the purchase at the lowest price obtainable, or redemption by lot of bonds secured hereby."

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XII.

May 24, 1887, an order was entered in the suit of the Commonwealth of Pennsylvania, against The Philadelphia and Reading Railroad Company and others to No. 98 of the Equity Docket, in the Court of Common Pleas of Dauphin County, Pennsylvania, denying the motion of the Complainant for a preliminary injunction, since which time no further proceedings have been taken.

XIII.

The before mentioned orders of the Circuit Court of the United States, affecting The Philadelphia and Reading Railroad Company or The Philadelphia and Reading Coal and Iron Company and their Receivers; the several leases and agreements above recited, and the Mortgage or Deed of Trust made by the Reading Company to the Pennsylvania Company for Insurances on Lives and Granting Annuities, Trustee, may, at the hearing be referred to and read from by either side with like effect as though the same had, each and severally, been proved in evidence, in their entirety.

CHARLES E. HENDERSON, having been duly sworn, was examined as follows:—

By JUDGE CAMPBELL:

Q. Where do you at present reside? A. Talbot County, Maryland.

Q. You are now retired from active business, and are simply a plain farmer? A. Yes, sir.

Q. Not in too much detail, kindly give us a general idea of your railroad experience connected with the subject of

conducting transportation, accounting and traffic, prior to your being connected with the Philadelphia and Reading Coal and Iron Company. A. My first experience in railroad business was clerk at the station at Fort Scott, Kansas, on the Missouri River, Fort Scott and Gulf Railroad, in 1870. Next after that I was chief clerk to the General Freight and Passenger Agent of the same road. Next after that I was chief clerk for the general superintendent of the same road. This general superintendent was also superintendent of the Leavenworth, Lawrence and Galveston Railroad, at Kansas City, Missouri. During the time I was chief clerk, I was in charge of the accounting department of the Leavenworth, Lawrence and Galveston Railroad. When I left there I was prospecting routes for the line that is now the Kansas City and Memphis Railroad, part of the Rock Island road. Next after that I was general freight and passenger agent of the Atchison and Nebraska Railroad. After that I was auditor and cashier of the Indiana, Bloomington and Western Railroad, at Indianapolis, Indiana. After that I was assistant general manager of the same road, in charge of its whole business, the president being located in New York. For eleven years I was general manager of the same. Intervening between the time I was general manager of that road, I was receiver of the same road. I was incidentally, however, at the same time manager of both roads. I was general manager of the Ohio Southern Railway for twelve years. On reorganization after the receivership of the Indiana, Bloomington and Western Railroad, I was general manager of the reorganized company, the Ohio, Indiana and Western. That covers my railroad career up to the time that I came East as general manager of the Philadelphia and Reading Coal and Iron Company, in December, 1889.

Q. So that from 1870 down to date you have been continuously in the railroad service, and during that period covering all its branches? A. Yes, sir.

Q. Of what departments of the business of the Philadelphia and Reading Coal and Iron Company were you

placed in charge when you came here in December, 1889? A. I was in charge of its mining operations and of its sales.

Q. How about credits and collections? A. Being in charge of sales, necessarily carried its credits and collections.

Q. You did, in fact, have charge of the credits and collections? A. I did. The accounting officer reported to the president of the company, as most of those accounting officers in the East do, and, of course, the collections came through the treasurer and secretary, but, necessarily, I had to have charge of the credits when I had charge of the sales.

Q. There was a change in the organization of the official status of the Philadelphia and Reading Coal and Iron Company in 1892, was there not? A. I do not know to what you refer.

Q. There was a new vice-president introduced, was there not? Mr. Harris became vice-president? A. Yes, sir. Mr. Harris became vice-president of the Coal and Iron Company. I do not recollect distinctly the date.

Q. What department did he take charge of and relieve you to that extent? A. Mr. Harris took charge of the mining operations. The general superintendent who theretofore reported to me, reported to him. I remained in charge of the sales department.

Q. Do you recall the appointment of the Receivers subsequent to that date, in February, 1893? A. I do.

Q. Did you continue in the service of the Receivers during their incumbency? A. I did.

Q. Under the same title of general manager? A. Yes, sir.

Q. After the foreclosure and sale of the Coal and Iron Company you continued in the same service for the new reorganized company up until a later date? A. I did.

Q. When were you made first vice-president of the Coal and Iron Company after the Receivership? A. October 1st, 1903.

Q. You continued in that position until when? A. April 2d, 1906.

Q. When did your service with the Coal and Iron Company terminate? A. April 2d, 1906.

Q. When you resigned? A. Yes.

Q. Upon the foreclosure and sale of the properties of the old Philadelphia and Reading Railroad Company, and their investiture in part in the new Philadelphia and Reading Railway Company, as appears by the record, what position did you take with the Railway Company? A. I was elected second vice-president of the Railway Company October 25th, 1896, and placed in charge of its freight traffic.

Q. How long did you continue in the service of the Railway Company as its second vice-president? A. To May 1st, 1908.

Q. Since that time you have been a farmer? A. Yes, sir.

Q. During your service as general manager of the Philadelphia and Reading Coal and Iron Company, and of its Receivers, who was the official who had immediate charge, under the president and the Receivers, of the subject of issuing price circulars and announcing to the trade the prices at which the coal produced should be sold, and the prices at which it was sold? A. They were all issued under my direction, over the signature either of the line sales agents or the general coal agent.

Q. Were those subjects of prices determined by yourself and the management and in consideration of what circumstances and conditions? A. They were determined by myself. Of course, no great variations were made without consulting the management, the president, who was, of course, the final officer, and the Receivers, in the case of the Receivers.

Q. What circumstances and conditions of cost and trade and demand entered into your determination in fixing those prices, if anything? A. When I came to the company, its operations were conducted at a loss. Effort was made to obtain a fair and reasonable profit. Its business was at first in a very unsatisfactory shape. I thought first as to the credits. There was a large amount of money outstanding in notes. Credits, some of which I thought were un-

reasonable, were limited and restrained. The prices at which the coal was sold was, I thought, on an irregular basis. Prices were not maintained to a reasonable figure, and effort was made, of course, to correct what I thought were abuses, and to try to get the business on more reasonable and proper basis.

Q. What had the elements of cost and market conditions to do with the determination of that policy that you acted on? A. When the business was conducted at a loss, very naturally, an effort was made to conduct it at a profit, if possible.

Q. Were or were not the conditions of the market, and the element of cost of production, matters of consideration in determining what should be done to establish the business on a basis of obtaining a fair and reasonable profit? A. Necessarily, the element of cost entered into the question.

Q. It was the prime factor, was it not? A. It was.

Q. Did this condition of conducting the business at a loss prevail during the Receivership, or any part of their term of office? A. It did.

Q. It is in the record that the Receivership began in February, 1893, and continued until the 1st of December, 1896. Do I understand you to say that during a large portion of this period, or all of it, or part of it, the business continued to be conducted at a loss to the Coal and Iron Company? A. During a part of the Receivership it was conducted at a loss. There might have been some special periods when it was conducted at a profit, but, on the whole, it was conducted at a loss.

Q. Have you in your mind the substantial figures which represented the losses of the Receivers of the Coal and Iron Company during their operations? A. I do not carry those figures in my memory. It has been a long time.

Q. It is a large amount? A. A large amount.

Q. Would it amount to as much as $3,000,000, according to your recollection, or do you not recollect? A. I should think it would be somewhere from one to two millions of dollars during the Receivership.

Q. Do you know how the Receivers met that loss? A. The Coal and Iron Company was unable to pay its freight bills to the Railroad Company. They remained unpaid.

Q. So that the Receivers of the Railroad Company had in their debits to the Receivers of the Coal and Iron Company the aggregate of that loss at the termination of their administration? A. They had.

Q. The record shows that at the Receivers' sale this item and others of debit against the Coal and Iron Company were sold, and were ultimately vested in what is now the Reading Company. Do you recall that as a result of the reorganization, or do you not? A. I know that in a general way. Those were not under my charge specifically.

Q. Did that condition prevail to any extent after the reorganization, after the transportation of coal was conducted by the Philadelphia and Reading Railway Company? A. Not to any extent ordinarily after that date. The Coal and Iron Company was able to pay its bills to the Railway Company.

Q. Did it pay them all ultimately? A. Yes, sir.

Q. You know as a fact, do you not, that the Coal and Iron Company has always paid its freight during your administration of the Coal and Iron Company and of the Railroad Company? A. You mean since the Receivership? Yes.

Q. I say the Reading Railway Company? A. Yes.

Q. During your administration, covering both periods, what efforts, if any, were made to extend and enlarge the markets for the coals produced from the coal operators? A. Every possible effort was made to extend and enlarge the business.

Q. In what regions? A. In every direction, but more especially New England and in the West.

Q. What with respect to dock properties operated by the Coal and Iron Company, say, for instance, in New England? A. They have a railroad dock property at Newburyport, another one at Salem; we leased a wharf in Boston; we had one at New Bedford; we had a commercial office in Boston, and traveling sales agents throughout New England.

Q. All points accessible to the coast? A. Yes, sir.

Q. Was there any effort made to increase and enlarge your all-rail trade? A. Yes. There was an effort made to increase the business over the New York, New Haven and Hartford Railroad, all-rail. It went by way of New York.

Q. Any all-rail business done through the northern railroads of New England, Boston and Albany, Boston and Maine, and so forth? A. There was a very small business done by the Poughkeepsie Bridge route.

Q. Before it came under the control of the New York, New Haven and Hartford? A. Yes, sir.

Q. How about the trade in New York City? A. Every effort was made to increase the trade in New York City that was possible. The Port Reading road was built just about the time I came here, and its business was developed as rapidly as it was possible to do so. The shipping facilities there were increased constantly, and the trade constantly increased.

Q. How about other points in New York, such as Buffalo, Rochester, and Canadian points? A. Almost immediately after I was appointed I made a trip to the west. The business of the company had been conducted through commission agents. On my return I reported it in an unsatisfactory condition. The business was taken over from these commission agents, and the properties that they used were acquired by lease, and agents appointed at Rochester, Buffalo, Chicago, Milwaukee, Minneapolis and Superior.

Q. Speaking of Superior, on the south side of the western end of Lake Superior, is it not? A. It is at the extreme western end of Lake Superior, opposite the city of Duluth.

Q. And commands the business of the city of Duluth, as I take it? A. More or less, yes, just across the river or bay.

Q. Was this done with the result that you were in active competition for the increase and enlargement of your trade throughout all the accessible territory? A. Yes, sir.

Q. How about Baltimore and Washington? A. We had agencies in Baltimore and Washington, and made every effort to do the business of those places, and actually did about sixty per cent. of the business of Baltimore and Washington.

Q. During your administration was there not a very considerable enlargement and increase of your trade throughout all these territories? A. There was.

Q. Did these efforts continue down to the termination of your administration? A. They did.

Q. What official of the Coal and Iron Company conducted the negotiations with the individual operators, so-called in this record, in respect of the so-called sixty-five per cent. contracts? A. I did.

Q. It is charged in the Government's petition that in pursuance of the previous agreement between these various transportation companies or the coal companies affiliated or subsidiary with them, "to draw, if not to force the great majority of the independent operators into making the sixty-five per cent. contracts, thereby enabling the defendant carriers and their subsidiary companies to control absolutely the output of most of the independent anthracite mines, and to prevent it from being sold in competition with the output of their own mines in the markets of the several States, particularly in the great tidewater markets." Was your attention ever drawn by anybody to any such arrangement as contemplated by this charge in the Government's petition? A. Not so far as I was concerned, or the Philadelphia and Reading Railway operators were concerned.

Q. Is it true that in those negotiations you tried to force or to draw all or any of the individual operators operating on the lines of the Philadelphia and Reading Railway Company into making these contracts? A. The Philadelphia and Reading Railway Company operators were left free to sell their coal in any markets that they saw fit. To sell it to the Coal and Iron Company if they saw fit, or to sell on their own account if they saw fit.

Q. The charge is, therefore, not true so far as the

Philadelphia and Reading Coal and Iron Company and the Philadelphia and Reading Railway Company and the Reading Company are concerned? A. Not to my knowledge, it is not.

Q. You say you conducted the negotiations under which the contracts were made. How were those negotiations opened, or how was the subject introduced? A. The operators on the Philadelphia and Reading Railway claimed that operators in other regions were paid a higher per cent. than they were by the Philadelphia and Reading Coal and Iron Company, and they asked that they be put upon the same basis.

Q. So the overture was made by the operators and not by the Coal and Iron Company? A. It was.

Q. Absolutely in every case? A. Absolutely so. I never asked them to sell their coal to the Coal and Iron Company, and they were left free to sell it themselves if they desired so.

Q. Do you recall some consultation on the subject between yourself and the management as to whether or not the company was reluctant to make this change? A. I do not clearly get the meaning of your question.

Q. Did you promptly and immediately enter into those contracts with the shippers, or did you wait until it was ascertained that operators in other regions were obtaining the benefit of the contract? A. Those operators made application to me for this change, and I told them if it was found that other regions allowed them that, and if it was definitely ascertained, they could take the question up again with us, and they would receive fair treatment.

Q. It was then because such contracts had been entered into by operators in other regions that you consented to enter into these contracts, so as to put the operators in your region on a parity with their competitors in the market? A. Yes, sir.

Q. That was the sole and only consideration? A. Yes.

Q. For the purpose of elucidating if I can the changes that have occurred in the prices received at the mines for anthracite coal beginning with the year 1900, before

the strike of that year, and ending with the last year that you were in the service of the Coal and Iron Company, I would like you to state the prices from a memorandum that you kept as to the advances in the average prices of prepared and small sizes. A. There was a moderate increase in the prices both of prepared sizes and of steam sizes.

Q. Take prepared sizes from year to year from 1900 to 1906 inclusive. A. There was an increase in the receipts and in the cost.

Q. I am talking about the receipts. What was it for the year 1900, the general average of prepared sizes, so called, at the mines? A. Two dollars and forty cents in 1900, two dollars and sixty-three cents in 1901, two dollars and eighty-two cents in 1902, three dollars and thirty-three cents in 1903, three dollars and thirty-one cents in 1904, three dollars and twenty-eight cents in 1905, and three dollars and twenty-nine cents in 1906.

Q. How about the smaller sizes? A. Smaller sizes, 1900, eighty-nine cents for average Pea and smaller sizes; 1901, one dollar and seven cents; 1902, one dollar and sixteen cents; 1903, one dollar and thirty cents; 1904, one dollar and twenty-seven cents; 1905, one dollar and sixteen cents; 1906, one dollar and eleven cents; 1907, one dollar and fifteen cents.

Q. All this coal, both prepared and smaller, is anthracite coal? A. Yes, sir.

Q. And contains the same combustible substances? A. Yes, sir.

Q. How do you account for the discrepancy between the prices of these smaller sizes and the prepared sizes? A. The smaller sizes are used as steam coals in competition with bituminous coal. The prepared sizes are used for domestic use, house stoves and furnaces. They are more valuable for use, and intrinsically more valuable, because they have less debris, foreign substance in them.

Q. How is it in respect of the cost of preparation, or manufacture? A. Coal comes out of the mine and is broken up and passed through the screens into the vari-

ous sizes, and I do not know how you are going to discriminate what belongs to the cost of one or the other.

Q. The preparation, is it not, is intended to put the prepared sizes, so called, in a condition to be merchantable? A. Yes, sir.

Q. And the smaller sizes is what is left after that process? A. Yes. An effort is made to use the smaller sizes for steam purposes rather than have them go in the waste pile.

Q. What is your knowledge or experience as to the general result to the Coal and Iron Company of these coal purchase contracts? A. I never thought it made much difference to the Coal and Iron Company one way or the other.

Q. How is it as to the financial result? Was the business done at a profit or at a loss? A. The business of the purchase of coal by the Philadelphia and Reading Coal and Iron Company as a whole, has been a profitable operation.

Q. Did you make any particular investigation or study as to that part of the purchased coal that went to New York tide, as to whether or not, on the whole, it was profitably done? A. There was less profit in coal that went to tide than there was in that which went to the line, but, on the whole, even that was done on a profitable basis.

Q. I hand you a little memorandum from the record, which has been called to your attention, simply for the purpose of refreshing your recollection. Beginning in 1889, when you first came to the service of the Coal and Iron Company, and including the year 1891, were there any coal purchase contracts in existence? A. There were not.

Q. There had been previously, as you understood, in times past? A. I am advised so. I have no knowledge on the subject.

Q. From the period in 1889, when you came into the service, down to 1891, there were no coal purchase contracts? A. No.

Q. And no coal purchased? A. None.

Q. From 1892 forward up to the termination of the receivership, there were purchase contracts in effect? A. There were.

Q. Those contracts had been in negotiation immediately prior to the receivership, I take it? A. They had.

Q. The first shipments were made in 1892 to a small amount? A. Yes, sir.

Q. I desire to call your attention to the condition of the trade for the years 1897, 1898 and 1899, after the resuscitation of the Coal and Iron Company from the hands of the Receivers, and, including the year 1902, before the sixty-five per cent. contracts took effect, and then considering the period after the sixty-five per cent. contracts went into effect. Was the coal purchased by the Coal and Iron Company under the sixty-five per cent. contracts greater or less than for the three years immediately preceding? A. Substantially the same persons and the same amounts. Scarcely any variation, except such as was due to the increased or decreased mining.

Q. Depending altogether on the conditions of the trade? Yes, sir.

Q. I notice three or four hundred thousand tons increase in 1904. What was the condition of the trade and of the markets for that year? A. I think that that was just after the strike, when there was a heavy demand for coal and the collieries ran regularly through the year, which therefore they had not done.

Q. It was due to that abnormal condition? A. Yes. There was no change in the purchase contracts.

Q. So that, as matter of fact, as the result of the sixty-five per cent. contracts, the Coal and Iron Company did not absorb any increased or additional tonnage from the individual operators? A. It did not.

Q. I understood you to say that these negotiations were opened by the operators, who had pre-existing sixty per cent. contracts or other contracts, and that no contracts were negotiated with other parties than those who had pre-existing contracts at that time? A. That is substantially true.

Q. I believe our papers show that we made a contract later with a new operation? A. The Philadelphia and Reading Railway Company operators were free to sell their coal to the Coal and Iron Company or to sell it to whoever they saw fit.

Q. You mean the operators whose collieries were tributary to the Philadelphia and Reading Railway? A. That is what I mean.

Q. Was there other coal purchased from operators from time to time by the Coal and Iron Company otherwise than under these sixty-five per cent. contracts? A. Yes.

Q. Under what circumstances? A. During periods of depression, when the operators on the line of the Philadelphia and Reading Railway could not dispose of certain sizes of coal, and had no places to store it, it was purchased from them and put in storage yards rather than have it remain in the cars and block the road. That was usually done on a basis so as to make it equivalent to furnishing them storage as the Coal and Iron Company had its storage.

Q. No operation could go on and block the road very long, could it? A. No. Or the railroad could not afford to permit that. That was to enable the operator to run and produce the sizes that were in demand, and increase the business of the company. If allowed to remain in the cars it would impair the car supply to the Coal and Iron Company, and to the other operators as well, and, it was purchased for that reason, to relieve them, to let them go on with their mining operations.

Q. Regardless of whether they had contracts or not? A. Yes.

Q. As to the proportion of individual operators on the line of the Philadelphia and Reading Railway Company who made sixty-five per cent. contracts and those who did not, do you recall? A. Susbstantially ten per cent. of the production on the line of the Philadelphia and Reading Railway was purchased coal from operators. There remained about ten per cent. that was not purchased from operators, which operators shipped and sold on their own accounts.

Q. Of those ten per cent. who sold their coal on their own account, to which you have just now referred, what proportion in point of numbers of operators did they cover? A. In point of numbers there were more individual operators who sold their coal on their own account than those who sold it to the company.

Q. Do you recall that there were about six or seven sixty-five per cent. contracts, and over twenty-five operators who did not enter into the contract, or something like that? A. Yes. That is substantially correct. Perhaps ten made it, and twenty-five or more did not.

Q. I would like you to give, with as much detail as you can without encumbering the record too much, the history of the construction of the storage yards on the line of the Philadelphia and Reading Railway established by the Coal and Iron Company, and the motive therefor. A. Shortly after I came to the Coal and Iron Company, as an illustration, I found Pea coal in Philadelphia in the early Summer months selling at sixty cents a ton. That same Fall I found they could not fill their orders at a dollar and twenty-five cents a ton. It seemed a sheer waste to me, and I thought that some provision ought to be made to carry that coal from the dull season to the active season for that size of coal. We estimated that that coal could be dumped and picked up again for say twenty-five cents, steam sizes, because there was comparatively little waste in that. Perhaps the prepared sizes would make a little more waste. As a commercial proposition it seemed manifest to me that that was a wise thing to do. I took it up with Mr. McLeod, and went to the region, took the general superintendent and looked around for favorable places to make storage yards. We found one on a hillside at Mahanoy City, and another one at Schuylkill Haven.

Q. Before you leave Mahanoy City, state whether that yard was also employed at that time for the transhipment of coal in box cars to go West? A. It was; yes. That yard had been in existence for transhipment, and for having coal that was not prepared up to the standard, taken to a place where it could be prepared up to the standard.

That was in existence, with a capacity of forty thousand tons. We immediately increased that to two hundred thousand tons, and built the Schuylkill Haven yard with a capacity of about two hundred and fifty thousand tons. It seemed wise commercially; that is, we could get a better price for the coal, but more than that, it enabled us to free the cars and to mine more economically and more regularly.

Q. How about other later developments in the line of establishing storage yards? A. These yards took care of the stored coal reasonably well, because they were afterwards both of them increased in size, and Schuylkill Haven to a capacity of five or six hundred thousand tons. But, owing to the difficulties of transportation which in later years was brought about by shortage of cars and increase of traffic on the road, it seemed desirable to have more of this coal nearer to destination, and, in later years, 1903 or 1904, a storage yard was built at Abrams, about twenty miles up from Philadelphia on the Schuylkill River, because it would be more accessible for bringing into Port Richmond and transporting into vessels, and for distribution generally.

Q. And at a point also, was it not, where the coal could be diverted? A. It was put at Abrams because it could be sent from there to Port Reading without being hauled back on the main line.

Q. What is the capacity of that yard? A. About three or four hundred thousand tons. It has been enlarged somewhat since I left.

Q. While primarily these yards were established for the care of by-products when they were not marketable so as to allow the mines to go on the produce coal that was marketable, other coals besides smaller sizes have been in store, have they not? A. The storage yards carry perhaps as much prepared coal as they do steam sizes. The case I used was an illustration. The active season for prepared or domestic sizes is in the Fall of the year when the cold weather sets in. The dull season for those sizes is in the Spring and Summer months, and the steam sizes run practically regularly throughout the year, so that the dull sea-

son for one size is generally the active season for some other size, and coal is going in and of those yards practically throughout the year.

Q. According to the demand for the coal? A. Yes, sir.

Q. As a corollary to this subject of storage, I would thank you to state what was done by the Coal and Iron Company to equalize the operations of the mines throughout the year rather than to be pressed beyond their capacity in what you call the active season? A. Through all the period of which I have any knowledge of anthracite transactions there has been a lower price in the Spring of the year, when the season was dull, than later throughout the year. That lower price in the earlier season of the year was for the purpose of inducing the users of coal to lay in their supply earlier in the season, in order that the mines might run more regularly throughout the year, and should not be neglected in one season and overpressed in another season. That was done in the earlier period of my experience in what I deemed a disorderly way. I thought it was always desirable that there should be some estimate made of what would make the equivalent to a purchaser of coal of buying it in the Spring and keeping it until the Fall when it would go out to his customers and one or two of the other gentlemen and I took some pains to figure up what would be fair, what would induce people to lay in their supply in that way and enable the mines to run more regularly throughout the year, to conduct their operations more economically, and to keep an adequate supply of coal on hand at all times without undue lowering of the price at one season of the year and an undue raising of the price at other seasons of the year, which we thought was certainly to the interests of the railroad, and certainly to the interest of the miners and coal companies, and felt also that it was in the interest of the public.

Q. Was this plan considered by your management? A. Yes. Mr. William H. Sayre and I talked it over first, and then I presented it to our management, and they thought it was wise to do it, and we put it into effect.

Q. What was the result? What do you refer to as having put into effect? A. This plan of regularly increasing the price, as has been done for the past few years.

Q. You mean reducing the price on the first of April? A. Reducing it fifty cents a ton on the first of April, and advancing it ten cents per ton each month until the Fall season, when the active trade was resumed and normally took up the supply of coal. The plan seemed to work to the satisfaction of everybody, and, so far has continued.

Q. It is charged in the Government's petition that your company and others, or the corporations which control them, have entered into a combination and conspiracy to advance the price of coal and maintain it in an arbitrary way. While you were the executive officer in charge of this business was there ever any communication made to you by anybody else of the existence of any such combination or conspiracy? A. I have no knowledge of any such.

Q. None was ever communicated to you either from the inside or the outside? A. No, sir.

Q. And the prices which have been fixed by you in consultation with the management, and maintained by you in pursuance of the policy which you have described, has been the policy of your company independent of any understanding or arrangement or agreement with anybody else whomsoever? A. The prices were not maintained by us.

Q. But those that were obtained? A. They were simply the result of business judgment, and not as the result of a conspiracy at all.

Q. Of your own business judgment, the business judgment of your own company, your own management? A. Yes.

Q. So far as the mines of the Philadelphia and Reading Coal Company, it is in testimony already that they are tributary wholly and only to the Philadelphia and Reading Railway? A. There are only three or four of them that have any physical connection with any other railroad. Morea is one. That is connected with the Penn-

sylvania and the Lehigh Valley. Also the Lyttle has a similar connection. The Pennsylvania line has connection, one side of the track, and we have of the other. Silver Brook has a connection with the Lehigh Coal and Navigation Company's tracks.

Q. In respect to those collieries you have mentioned, Morea, for instance, the shipment of those coals is determined by the property ownership of the lands. Some of the companies connected with the Pennsylvania system are worked from that colliery, some of the Lehigh Valley's properties are worked from that colliery, and some of the Coal and Iron Company's properties are worked from that colliery? Is not that a fact? A. I do not think the Pennsylvania Company has any connection with the Morea. That is, Weston and Dodson's mine.

Q. If they desire to ship to points on the Pennsylvania Railroad? A. They do ship in all directions. There are three or four collieries.

Q. There are properties of the Coal and Iron Company operated from that colliery? A. Yes, sir. There are gangways of their mines that go into some properties of the Coal and Iron Company, which adjoin.

Q. And some properties of the Lehigh Valley Coal Company? A. I am not sure whether that is Weston and Dodson.

Q. That is the only colliery with the exception of the Lytle, which you have particularly mentioned? A. Lytle is owned one-third by the Pennsylvania Railroad Coal Companies, and the Philadelphia and Reading Coal and Iron Company own one-third of it.

Q. The ownership of the land controls the movement of the tonnage? A. An operator, when he mines coal of one of these coal companies ships it over the railroad with which it is affiliated.

Q. Do the leases cover that matter? A. The mining leases are usually made on that basis.

Q. You referred to the Silver Brook? A. The Silver Brook is practically exhausted now.

Q. There were lands of the Lehigh Coal and Naviga-

tion Company operated from that colliery, were there not? A. Yes, sir.

Q. That accounts for their getting a portion of the shipments? A. Yes, sir.

Q. Do you know whether the Navigation Company does own considerable lands along that Schuylkill Valley Branch, largely undeveloped? A. The Lehigh Coal and Navigation Company own nearly all the coal lands east of Tamaqua. They run out to the line of the Little Schuylkill River, which passes through Tamaqua.

Q. This is west of the Little Schuylkill River? A. East of the Little Schuylkill River, on the Little Schuylkill Railroad, east of Tamaqua are the lands of the Lehigh Coal and Navigation Company, though they do have some small bodies of land west of that, on the lines of the Philadelphia and Reading Railway Company.

Q. On the Schuylkill Valley Branch of the Philadelphia and Reading Railway Company? A. No, sir. There are some small bodies of ground belonging to the Navigation Company lying between Tamaqua and Port Carbon or Pottsville on the Schuylkill Valley Branch that reaches it.

Q. Silver Brook colliery lies up at Lofty. Silver Brook colliery is not on the Schuylkill Valley branch at all, but is on a little branch railroad to Lofty? A. Yes, sir. But its traffic comes down.

Q. Silver Brook colliery has been abandoned some time since, worked out? A. Yes, sir.

Q. There is no coal comes down there? A. No, sir. The Lehigh Coal and Navigation Company owns lands between Tamaqua and Pottsville or Port Carbon on the line of the Schuylkill Valley branch, about half way between Tamaqua and Pottsville. They have a running right over the lines of the Reading Railway, by which they carry that coal from these collieries on this line with their own engines to their road at Tamaqua and thence carry it to destination by way of the Central Railroad of New Jersey and its leased lines of the Lehigh and Susquehanna, which belong to the Lehigh Coal and Navigation Company.

Q. That applies also to Allianee, that is not in here? A. Yes, sir. Alliance and Mary D. There are three collieries in there.

Q. On the lands of the Lehigh Coal and Navigation Company? A. Yes, sir. Kaska William is near Middleport on the branch between Tamaqua and Port Carbon. Mary D. is on the lands of the Lehigh Coal and Navigation Company, leased to Doctor Wentz's individual operation, who used to operate Silver Brook.

Q. With the exception stated, do the defendants, the Lehigh Valley Railroad Company, the Central Railroad Company of New Jersey, the New York, Susquehanna and Western Railroad Company, the Delaware, Lackawanna and Western Railroad Company, the Delaware and Hudson Railroad Company, the New York, Ontario and Western Railroad Company, or any of them, reach any of the collieries of the Coal and Iron Company or the collieries located on the lines of the Philadelphia and Reading Railway Company? A. With the exceptions stated, none of them have physical access to the collieries located on the roads mentioned.

Q. None of them are, or never have been competitors of the Philadelphia and Reading Railway Company for the traffic originating at those mines? A. Not for the carriage of that coal; no.

Q. Does the Philadelphia and Reading Railway Company reach any of the collieries located on the lines of the Panther Creek Railroad or other lines of railroad of the Lehigh Coal and Navigation Company or the Central Railroad Company of New Jersey or the Lehigh Valley Railroad Company or the New York, Susquehanna and Western Railroad Company, or the Delaware, Lackawanna and Western Railroad Company, or the New York, Ontario and Western Railroad Company, or the Delaware and Hudson Company? A. With the exception stated, the Philadelphia and Reading Railway Company has no physical connection of its own lines with any of those lines mentioned.

Q. They are not competitors? A. Not for the carriage of the traffic on the lines of each other.

Q. They are not then competitors of each other for the anthracite coal traffic originating at the collieries on the lines of each other in the anthracite coal regions? A. No; they are not competitors for the carriage of that coal traffic.

Q. The competition that does exist in respect of this anthracite coal is the competition in the various markets of the producers of the coal with each other? A. It is a competition of markets.

Q. It is wholly a competition of markets and not transportation? A. That is correct. With the exceptions noted—rather exceptions.

Q. Those conditions are not competitive as you describe them, are they? A. A few thousand tons of coal owned by individual operators may be shipped by one or two roads that have access to the same mines.

Q. That is insignificant? A. Very insignificant; not a quarter of one per cent. of the total production.

Q. The few individuals are those whom you have named? A. Yes, sir.

Q. And under the circumstances which you have mentioned? A. Yes, sir. I mean the exceptions noted at Morea. There is a little coal that is free to go by the Pennsylvania Railroad, or the Lehigh Valley Railroad, or the Reading Railway Company from Morea.

Q. That is governed by property conditions so far as the Philadelphia and Reading Railway Company is concerned? A. Partially so. It is so insignificant that it cuts no figure in the real competition.

Q. The record shows by the testimony of Mr. Harris that while he was managing receiver of the Philadelphia and Reading Coal and Iron Company and the Philadelphia and Reading Railroad Company, he attended a conference with certain other representatives of the anthracite interests at which there was arrived at by some process or other the proportions of anthracite coal which had been carried over their various lines in times past, and, I believe, he testified that there was an understanding, though not an agreement that that was about what

they could do or should do in the way of carrying anthracite coal. Were you ever apprised, being the person who had charge of the distribution of coal, of any arrangement or agreement whereby those so-called percentages should be maintained? A. There was an arrangement by which the statistics of the shipment of coal by these railway companies was given both to the Government for its census purposes, and Mr. Jones, afterwards Mr. Ruley, kept the statistics, and all the companies reported to this Bureau of Anthracite Statistics what their shipments were. That was always referred to, it was always known, no conditions ever changed it materially, because it was governed by the capacity to produce. The capacity to produce fixed the capacity to sell, because they only could sell what they could produce, and that was frequently discussed, but no one absolutely observed it. They knew what each company would produce all the time. They sold what they could, in spite of it.

Q. My question was whether you were ever apprised officially or otherwise, of the existence of any combination or agreement whereby such an arrangement, so-called, should be carried out? A. No, sir.

Q. Did you, in the exercise of your functions, ever attempt to be governed by this so-called allotment of percentages? A. No. We tried to produce and sell all we could.

Q. You were governed by no such limitations? A. No, sir.

Q. At any time during your experience through the Receivership or since? A. That limitation would come about on that basis in spite of that.

Q. Because it is the result of natural and economic conditions? A. Yes, sir.

Q. Location and capacity of the collieries? A. Yes, sir.

Q. And ability to reach the markets? A. Yes.

Q. When you came in charge of the Freight Traffic Department of the Philadelphia and Reading Railway Company, it was your duty, amongst other things, after

consultation with the management, of course, to determine upon, fix and publish the tariff rates of all freight traffic? A. Yes.

Q. I will thank you to refresh your recollection, supported by reference to the original tariffs which were filed with the Interstate Commerce Commission, and tell us what was the anthracite rate to New York Harbor points in existence at the time of the surrender by the Receivers of the Philadelphia and Reading Railroad Company to the Philadelphia and Reading Railway Company? Read the rates and tell us what they were to New York Harbor points? A. This is a tariff taking effect September 7th, 1896, issued by the Receivers from collieries in Shamokin, Mahanoy, Schuylkill, Lorberry, and Lykens Valley Districts, via Port Reading to New York within lighterage limits via Port Reading and discharge, prepared sizes one dollar and ninety-five cents, Pea coal one dollar and eighty cents, smaller sizes one dollar and sixty cents. That is for white ash coal. Included in this charge was an allowance of forty cents per gross ton for barge service and discharging in New York harbor. The rate is higher from Lorberry and Lykens Valley district. Fifteen cents on prepared sizes and on Pea coal ten cents.

Q. That tariff was in existence when the Philadelphia and Reading Railway Company took possession of the property? A. Yes; it was.

Q. And it continued in existence until changed by the Philadelphia and Reading Railway Company at what time? A. A new tariff was put into effect September 25th, 1901. From collieries in Shamokin, Mahanoy, Schuylkill, Lorberry and Lykens Valley districts, shipping via Schuylkill Haven and Tamaqua to New York one dollar and ninety-five cents prepared sizes, Pea coal one dollar and eighty cents, Buck No. 1 one dollar and sixty-five cents, Buck No. 2 one dollar and fifty cents. Collieries shipping via Pine Grove two dollars and ten cents for prepared sizes, Pea coal one dollar and nintey-five cents, Buck No. 1 one dollar and eighty cents, and Buck No. 2 one dollar and sixty-five cents. "An allowance of

forty cents per gross ton will be made from above rate for barge service and discharging in New York Harbor."

The last tariff took effect September 4th, 1906. From collieries in Shamokin, Mahanoy, Schuylkill, Lorberry and Lykens Valley districts, via Port Reading, New Jersey, to New York, within lighterage limits via Port Reading, New Jersey, prepared sizes one dollar and ninety-five cents, Pea coal one dollar and eighty cents, Buckwheat No. 1 one dollar and sixty-five cents, Buckwheat No. 2 one dollar and fifty cents. An allowance of forty cents per gross ton for barge service and discharging as in the previous case.

Q. As far as you know, that tariff remains in effect at the present time? A. Yes, sir.

Q. Do you know about what increase of anthracite coal from the coal and iron collieries to New York Harbor and New York Harbor points via Port Reading has been made during the operations of the Philadelphia and Reading Coal and Iron Company since the Receivership? A. There has been a general slight increase movement by way of Port Reading since the Receivership. Almost every year there would be moderate increase.

Q. There has been a gradual increase? A. A gradual increase.

Q. I want to call your attention to your knowledge of the coal regions generally, regardless of the Philadelphia Coal and Iron Company's properties, I mean the coal regions tributary to the Philadelphia and Reading Railway Company, and I will thank you to give a brief general description of the method and manner of gathering coal from the mines to the trunks and thence to the scales where they are weighed and shipped, and give some account of the difficulties and expense of gathering the coal and bringing it to the point where it enters upon its final journey for the service of transportation. A. The most distant colliery from the weighing scales of the Philadelphia and Reading Coal and Iron Company is North Franklin. The distance that that coal goes to the weighing scales, when it comes from the Mahanoy Plane is

about twenty-five miles to St. Clair weigh scales. It is gathered and goes to the Shamokin yard, and is thence handled to the foot of Mahanoy Plane, a distace of about fifteen miles.

Q. In process of its travel from the Shamokin yard to the Mahanoy Plane, what obstacle does it overcome, and how must it be handled? A. The engine which brings it from Treverton to Shamokin carries it to Shamokin yard. It is then carried up a steep grade to the top of the hill east of Shamokin. It is then handled by way of Ashland and Gordon over very steep grades, usually two or three engines used to carry a train load of about twenty cars, and it is carried to the foot of Mahony Plane and shifted so that the Plane engines can catch the car. Usually they take two or three cars to the top of the Plane, an ascent of five hundred feet in a distance of less than a mile, and when it gets to the top of the Plane it has to be shifted into trains, and is carried down Broad Mountain, and is put in the yard at St. Clair, and passed over the weigh scales, and then put into a yard below St. Clair, and that is its billing point. It is then billed to its destination.

Q. That is the first time at which its destination can be determined? A. Yes.

Q. Where it shall go? A. Yes. The orders for its distribution are given to weigh scales. The weight is not determined until it goes to the weigh scales. In most of the other regions the collieries have scales at the colliery, but in the case of the Reading the coal is concentrated at the weigh scales. It is often handled two or three times on account of there being steep grades and a very mountainous region. Then it is billed from the weigh scales to whatever may be its destination. The orders for the distribution of the coal are sent to the weigh scales.

Q. So that the actual service of the transporation to the market begins at the weigh scales? A. The actual calculation for the rates per ton per mile begins at the weigh scales. A service is performed before this coal comes to the weigh scales, which is very difficult on ac-

count of the mountainous character of the country, and the cost of gathering it to the scales, is, in many instances, greater than the cost of transporting it from the weigh scales to its final destination. Particularly is that the case when it comes to the point at Port Richmond.

Q. Does that remark apply to all the collieries which lie west of Locust Summit? A. Yes.

Q. How many of them are there in there, both individual and company collieries? A. About ten west of Locust Summit altogether, large and small. As you come nearer to the scales the handling is of a less distance and it is not handled so many times, but it is repeatedly handled.

Q. East of Locust Summit on the main line over which this coal is carried from west of Locust Summit in the Shamokin district, are there many operations tributary without coal branches, or not? A. There are several of them on the main line. Most of them are on branches.

Q. I mean between Locust Summit and Ashland, and the foot of the Plane? A. There are several operations.

Q. What are they? A. They all have switches of greater or less length.

Q. That do not have coal branches proper, I mean. Are there any? A. St. Nicholas is on the Mahony line. Alaska is on the main line.

Q. Alaska has to go over Locust Summit? Alaska is slightly east of Locust Summit. It goes up a very steep grade from Ashland to Girardville and Mahanoy Plane.

Q. There is another summit east of Locust Summit? A. Yes, sir. The grade from Gordon up to Girardville. I do not know the number of feet to the mile, but I should say over a hundred feet to the mile at least up to Mahanoy Plane.

Q. Eliminating those which have to pass over those grades and between the foot of the grade and the foot of the Plane, are there any material operations which will govern your statement as to the relative cost of gathering? A. All of those, even that are at the foot of the Plane, have to be handled several times, because they have to be switchel to the Plane, hauled over the Plane,

switched into trains, carried down the mountain, shifted into the yard, weighed, shifted again to be put into trains to be carried to final destination.

Q. Give some description of this Shenandoah branch on which many collieries are located? A. Shenandoah branch collieries shift around the point of the mountain, reaching the main line just slightly east of Bear Ridge, and then go eastward on the main line to the foot of the Plane, and then go through the same process of going up over the Plane, shifted for the Plane, shifted from the Plane, carried down the mountain, put into the yard, weighed and so forth.

Q. What sort of a curvature is there on that Shenandoah branch? A. The curvature is rather sharp, but, so far as bringing the loaded cars down the Shenandoah branch main line, that grade is down hill.

Q. It is favorable to the traffic? A. Yes, sir.

Q. How is it about the reverse direction for distributing the empties amongst the collieries? A. It is a very steep grade, as all the grades are in the region, being very mountainous.

Q. And expensive to operate? A. Yes.

Q. After the coal gets down to the main line, the same process of handling to the Plane and over the Plane has to be gone through with that you have described in respect to the coal coming from west of Locust Summit? A. All the coal north of the mountain, which is two-thirds of the total amount produced by the Philadelphia and Reading Coal and Iron Company has to be handled over Broad Mountain, over the Mahanoy Plane, and handled as many times as heretofore described.

Q. That applies also to the few collieries that lie east of Mahanoy City and east of the foot of the Plane? A. Yes. The coal from collieries east of the Plane is carried westward to the foot of the Plane and then carried over the Plane in the same way as those west of the Plane.

Q. Go down to the other side of the Broad Mountain and get into Minersville and Lebanon and Tremont district, and describe the movement of the coal as it comes

to the Cressona yard? A. The most distant collieries there are Brookside, West Brookside, Goodspring and Lorberry. They are about fifteen to twenty miles from Cressona yard, which is just a connection with the main line from Pottsville. There are eight or ten collieries between Tremont and Cressona yard on branches in the south of the mountain region. Cars from all these collieries are collected and carried to the Cressona yard. They are handled with somewhat less difficulty than those north of the mountain, because the grades are, in most instances, downhill to Cressona or Schuylkill Haven yards.

Q. But the reverse service for the empties —— A. The reverse service for the empties is in several instances even more difficult than it is on the north side.

Q. How about the Lincoln Colliery, and the long coal branch, the high curvature that leads to that? A. Lincoln Colliery is quite difficult of access for empty cars. They can only carry to it five or six empty cars with one engine.

Q. In getting this coal to the markets kindly put on the record the number of different kinds or qualities of coal, and the number of sizes of coal which it will make by multiplying the two. A. This is shown already by the records, that there are nine sizes of coal. Hard White Ash, Free White Ash, Lorberry, Lykens Valley, Red Ash and Shamokin.

Q. Taking the two together, both as to size and other varieties, how many varieties of coal are there to be handled at the yards or scales? A. There are six kinds in nine sizes.

Q. That makes fifty-four different kinds of coal? A. Fifty-four.

Q. At the scales describe the service of shipping and arranging these various kinds of coal to get them to the market to the purchaser who has ordered them, and to arrange them in trains to go to destination? A. All the orders for shipment of coal or sales are sent to the scales. What they call shippers, men who give the destination of the cars, are stationed at the scales. The coal has to be

weighed car by car, necessarily the switch engines must take this coal as it comes in from the collieries and shift the cars from the scales one by one, and they pass to the distributing yards below the scales, and they are way-billed from that yard below the scales. Necessarily they have to be shifted into trains to go to the destination to which the coal is consigned. That is the usual practice of shifting cars. If it was all one product, like bituminous coal, any car could be applied on a sales order, but if there are fifty-four different kinds and varieties, it is a little bit more difficult to make your application. Necessarily there is more switching service and work to be performed than if it was simply like bituminous coal. Then, it has to be distributed to many destinations. It must be put in a train that is going to or towards that destination always, and, frequently, it has to be shifted apart again at short distances in order to keep the trains going. You cannot let the coal stay there; it would block the yard. It has to be carried on to its destination. Sometimes it is handled and switched three or four times on the Reading Railroad. If it is going to Harrisburg, it goes twenty-five miles to Reading, and then it is shifted westward. If it is going to New York, or Baltimore, or Washington or various other destinations, it has to be handled very many times on the Reading Railroad. If you look at the map, you will find that our system is a very complicated one. It does not run over one main line. It is not an easy business to manage, either from a commercial or from a freight traffic standpoint, or from a transportation standpoint. Therefore, it would naturally be entitled to a higher rate per mile than in the case of coal carried, like bituminous coal, very long distances over one straight line, with comparatively few handlings of each separate car.

Q. Take the St. Clair yard as a specimen, and describe the nature of the requirements that the railroad is required to maintain in order to accommodate this method of handling and distributing the coal? A. This yard almost of necessity has to be kept moving all the time.

We frequently handle through that yard twelve to fifteen hundred cars of anthracite coal alone, leaving out of consideration domestic freight and other traffic which passes through the yard. It has to be operated very quickly or it will fill up. If the arrangements for sale and distribution and handling are not expeditiously and promptly and properly done, it will involve a very heavy expense for blocking the yard, undertaking to switch the cars in order, if it once gets confused. Necessarily, it is a very expensive operation to handle and work the yard.

Q. None of this coal that we are speaking of that is produced from the Coal and Iron Company is handled at the Tamaqua scale? A. When there is any interruption to the Plane, as there sometimes is, the coal necessarily has to be passed through the Mahanoy tunnel and Plane to the Tamaqua yard, and there are one or two collieries at the mouth of the Mahanoy tunnel, the coal of which goes to Tamaqua yard.

Q. When the coal leaves the Tamaqua yard it runs down this Little Schuylkill River Railroad down the Little Schuylkill to Port Clinton, does it not? A. Yes.

Q. Where it, for the first time, strikes the main line? A. Yes.

Q. The bituminous coal traffic that you handle from the north, from the Beech Creek, Rochester and Pittsburgh and Clearfield regions, does not come through this territory, but comes down the Catawissa Railroad? A. It comes down the Catawissa Railroad to Tamaqua yard, and down to Port Clinton and strikes the main line at Port Clinton.

Q. So that bituminous traffic that is handled on the Reading line does not go over those heavy grades? A. No, sir; the favorable grades are in the Catawissa region.

Q. After you got to the top of the favorable grade of Lofty Mountain and Catawissa Mountain, you have practically water grade all the way down to Philadelphia? A. Yes, sir.

Q. You can haul as much loaded freight down as you can get empties back, I suppose, with the same power? A. Yes. From the mountain to Philadelphia.

Q. In connection with these same proportions of size and quality, I would like you to give some description of the terminal service at Port Reading for transhipment by water? A. There is the same difficulty in separating the numerous sizes of anthracite coal from each other in at the terminal as there is at the yards, where it is gathered for billing purposes. Bituminous coal being usually one or two kinds, it does not require anything like the amount of shifting that is required for anthracite.

Q. In the first place, there is required at the foot of the wharf, so-called, a yard somewhat similar, but probably not so extensive, as at the scales, is there not, where the loaded train stops and leaves its loads? A. Yes. The terminal yards are about as large as the scale yard. At Port Richmond, for instance, a yard holds about five thousand cars. Either one of these yards holds that many. At Port Richmond the yard has a mile of river front.

Q. The service of shifting from this terminal yard over the wharf to discharge the car into the vessel and discharging it into the vessel is also difficult and expensive, is it not? A. It is.

Q. For the same reason? A. For the same reason.

Q. Selecting and shifting and collecting the coal for a particular boat which is chartered by a particular owner, you have to select the particular cars that belong to that owner in order to get them into the vessels? A. You do.

Q. Which is an expensive service relatively? A. Yes.

Q. As compared with the service for handling bituminous coal? A. Yes. Because of the increased number of sizes.

Q. Do you remember the relations of the Port Reading Railroad Company and the Philadelphia and Reading Railway Company in respect of the operations and conduct of operations at the Port Reading terminal? Do you know whether or not the terminal service at Port Reading is rendered by the Port Reading Railroad Company and at its expense, or do you know as to the system of accounting as between the two companies? A. I never took that division as between the Philadelphia and Reading Railway and

the Port Reading Railroad Company into account as much as the accounting officers who kept that separate, and would be better witnesses for that than I would be.

Q. Then you do not know what those relations are exactly? A. No; I would not be a proper witness for that, because I did not attend to that division of the rates.

Q. What is your understanding, as the traffic officer, of the relations of this gathering charge and expense in the interchange of anthracite traffic with connecting roads to reach their territory? Is there or is there not an arbitrary allowance made, as a rule, for the gathering charge? A. There is an arbitrary allowance made in all instances for the gathering charge.

Q. Which is about what, in respect of what these gathering charges you have been describing are? A. Do you mean the amount of the gathering charge?

Q. Yes. A. It is thirty cents a ton for the coal coming this way, where the distances are greater. I mean coming over the mountain, coming East. When it comes West it is not hauled over the Plane, nor it is not hauled so great a distance. The charge there is fifteen cents. When it comes eastbound it is thirty cents. The total rate is prorated.

Q. In prorating on a mileage basis, is the mileage from the scale what governs the proportion to be demanded by the railroad company, or the total mileage from the mines? A. The gathering charge is supposed to cover the rate from the collieries to the scales. It is billed from the scales on the mileage basis.

Q. And the basis of mileage for the Philadelphia and Reading Railway Company is from the scales? A. From the scales.

Q. The shipping point? A. Yes, sir. The basis for computation of the mileage for division of rate, as well as the charge per ton per mile, is computed from the scale.

Q. When this expense of gathering is so much greater than the thirty cents a ton which you have stated it to be, why do you not require the connecting railroads to make a fair allowance for this gathering charge instead of thirty

cents a ton? A. We get from them as much as they will allow us.

Q. You cannot get them to concede more? Is that the idea? A. No. They do not want to pay it.

Q. You would get more if you could, wouldn't you? A. Yes. We frequently tried to.

Q. Do you not think you ought to get more than you do? A. Yes. In many instances we ought. This gathering charge is put on a fixed basis for all the collieries just as the rate is the same from all the collieries. In some cases it is much more difficult to gather than in others. For instance, it would cost a great deal more to gather from North Franklin, on account of the distance to the St. Clair yard than it would if the colliery were right near to the St. Clair yard. But, the gathering charge is uniform.

Q. It is averaged? A. It is made uniform.

Q. Is that supposed to represent a fair average or is it more or less than a fair average, in your opinion, as a practical man? A. I think it costs all the Reading gets for it.

Q. Is it not a fair average, or is it less than a fair average, in your opinion, thirty cents a ton? A. I think it is probably less than a fair average, because it is a very costly service.

Q. So if you assume for the gathering charge, before considering the rate per ton or the rate per mile, thirty cents for gathering, it is not an excessive assumption? A. It is not.

Q. What is taken out of the rate to cover the transshipment of the coal from the terminal roads over the piers into vessels to the terminal property? Fifteen cents you say? A. Yes, sir. Fifteen cents is the usual charge for passing coal over the piers into vessels.

Q. Deducting from the tariff rate which represents the service of the transportation from the scales to the terminal wharf, the thirty cents a ton for gathering charge, and the fifteen cents a ton for shifting and discharge into the vessels leaves what the company receives actually for

its service of transportation? A. Forty-five cents from a dollar and fifty-five cents leaves a dollar and ten cents for service of transportation to New York waters from the scales.

Q. On prepared sizes? A. On prepared sizes.

Q. A similar calculation has to be made for the smaller sizes? A. From the lesser rate on steam sizes.

Q. So as to ascertain the rate per ton and the rate per ton per mile, this balance is the basis on which you have to figure? Is that so? A. Yes, sir.

At 1.30 o'clock a recess was taken until 2.30. P. M.

2.30 P. M.

Counsel present.—Messrs. McReynolds, Todd, Campbell and Moot.

CHARLES E. HENDERSON, resumed:—

Direct examination (Continued.)

By JUDGE CAMPBELL:

Q. It has been suggested in evidence, I think from the minutes of the Temple Iron Company, that a committee of whom you were one, was one time appointed by somebody or other, to consider the subject of making a flat rate to the so-called outside shippers, as the phrase goes. Was that subject brought to your attention? A. From some source a communication was sent to me, saying that some such committee had been appointed. When I got possession of the paper, I took it to the president, and said to him that we could not do what was proposed by that committee to do; that it would be impracticable, and unfair, and unjust, and we would not do it. He said he thought I better meet the committee, and if it was impracticable, not to do it. I did meet the committee, and told them that we would not be a party to any such thing. That ended the discussion. No report was made on it.

Nothing was done in the premises further than that. I do not know where it originated, or who proposed it, or why it was done.

Q. In connection with these sixty-five per cent. contracts, and your subsequent relation to the transportation of anthracite coal in the coal regions, I want to call your attention to what I supposed to be one of the clauses of the sixty-five per cent. contracts, which is to the effect that these sellers of coal to the Coal and Iron Company shall, in the distribution of cars for the loading of the coal, receive a fair and just proportion, or words to that effect? A. In some of the contracts that proviso was made. It was undertaken to be done, in any event, whether there was a contarct for that purpose or not. The individual operators on the Reading Road, so far as we know, and so far as it came to our attention, always had their fair share in the distribution of the cars. We had no complaint but one in the whole period of my experience, and that was through some inadvertance on the part of some subordinate official, and was corrected immediately when it was brought to their attention. It is the only instance I know of that there was any real complaint.

Q. There have been occasions, have there not, when private operators, whether they sell their coal or not to the Coal and Iron Company, have enlarged their facilities for mining coal? A. Yes, sir.

Q. Which would require a re-adjustment of the so-called production of the proportion of cars? A. Yes, sir.

Q. When that subject would arise from time to time, was it properly considered? A. Yes, sir, that production was gone over whenever the collieries were changed materially.

Q. And a re-adjustment arranged for it according to the facts? A. Yes, sir.

Q. Before going into that subject I would like to call your particular attention to the relative increase of the anthracite coal traffic of the Philadelphia and Reading Railway system, as compared with the bituminous and merchandise traffic, from the beginning of the

operations of the Philadelphia and Reading Coal and Iron Company after the receivership, down to and including the period when your services were ended. I hand you, for the purpose of refreshing your recollection, a paper with which you are familiar, which bears on that subject. We are now beginning with the first seven months of the operation of the P. & R. Railway Company proper, which covers the time between the first day of December, 1896, when they took possession, to and including June 30th, 1897, which was the end of the fiscal year, and following down to the end of your service. Kindly state in a brief, general way, the proportion of increase of the anthracite tonnage, of bituminous tonnage, and merchandise respectively. A. The anthracite tonnage for the first full year, 1897-1898.

Q. That is from June 30th, 1897? A. No, sir. I am taking the full year for comparative purposes.

Q. This is the fiscal year? A. From 1897 to 1898 is the first fiscal year.

Q. First full fiscal year? A. Yes, sir. The anthracite tonnage was 9,464,000 plus. For 1907-8, was 13,537,000 tons plus, an increase of anthracite business or tonnage of about sixty per cent. The bituminous coal for 1897-8, in the first full fiscal year, was 3,517,000 tons. For the last year, 1907-8, was 10,816,000 tons, substantially an increase of three hundred per cent. The merchandise tonnage for 1897-8, the first fiscal year, was 9,862,000 tons. For the last year it was for 1907-8, 12,249,000 tons. That is less than the previous year. When I left it was 24,000,000 tons, an increase of substantially a little over two hundred per cent.

By Mr. Todd:

Q. Before you go on, may I ask whether those tons in each case are expressed in tons of the same number of pounds? A. A ton of coal, in the State of Pennsylvania, is a gross ton, twenty-two hundred and forty pounds. A ton of coal, whether anthracite or bituminous, is, in Pennsylvania, twenty-two hundred and forty pounds, a gross ton. The merchandise tonnage is ex-

pressed in net tons, but the comparison of increase is based on the same figure in each case.

Q. Which is two thousand pounds? A. No, sir, it is twenty-two hundred and forty for coal and two thousand for merchandise.

By JUDGE CAMPBELL:

Q. Now I ask you the same question in respect to the revenue. Before going into that subject I would like to call your particular attention to the relative increase of the anthracite coal traffic of the Philadelphia and Reading Railway System as compared with the bituminous and merchandise traffic, from the beginning of the operations of the Philadelphia and Reading Coal and Iron Company after the Receivership, down to and including the period when your services were ended. I hand you, for the purpose of refreshing your recollection, a paper with which you are familiar, which bears on that subject. We are now beginning with the first seven months of the operation of the P. & R. Railway Company proper, which covers the time between the first day of December, 1896, when they took possession, to and including June 30th, 1897, which was the end of the fiscal year, and following down to the end of your service. Kindly state in a brief, general way, the proportion of increase of the anthracite tonnage, of bituminous tonnage, and merchandise, respectively. A. As to the revenue for the first fiscal year, which was 1897-8, the revenue from the carriage of anthracite coal was $8,517,000 plus. For 1907-8 was $13,026,000.

Q. Give the percentage there of increase. A. Fifty-two per cent. The bituminous coal for 1897-8, the first full fiscal year, was $1,414,000 plus. For 1907-8 was $5,551,000, an increase of two hundred and ninety-two per cent. The merchandise for the first full fiscal year was $7,163,000. For the last year, 1907-8, it was $13,502,000, an increase of eighty-eight per cent.

Q. So that the large increases in revenue and tonnage, shown by the annual reports of the railroad company, put in evidence by the Government, is to be mainly ac-

counted for by the large increase in tonnage and revenue derived from the carriage of bituminous coal and general merchandise. A. Yes, sir.

Q. The establishment of this increased business grew up, to a large extent, under your own administration, did it not? A. It did, yes, sir.

Q. Go on and state on the record what was done, what methods were pursued to accomplish this great result. A. Almost immediately after I was appointed second vice-president of the Philadelphia and Reading Railway, in charge of its freight traffic, I started out on a tour of inspection as to the means of increasing the bituminous coal traffic of the Reading Road. Certain of its coal traffic was, at that time, derived from the mines on the line of the Beech Creek Railway. In making a trip up over the road, in which I persuaded the officials of that company to accompany me and provide a special train, and give me the information at their service, I developed the fact that they had an inadequate supply of coal on the line of that road to supply the industries on the line of our road. I came home and reported that fact to the president, and every other source of supply. The Reading Railway had large iron and other industries on the line of their road that consumed large quantities of bituminous coal, and I found their supply was inadequate to enable them to expand. I went out on the line of the then West Virginia Central and Pittsburgh Road.

The Western Maryland Railroad had a line up the side of the Blue Ridge on an impracticable route, and I found that there was sufficient coal to be found in West Virginia, from which they could derive a supply, and means of transportation were not adequate, that they could not haul that coal up the side of the mountain and down again, and let it go through the Cumberland Valley, to Hagerstown. I came home and reported the fact to our people, and asked them to build a line of road, which is now the New Western Maryland Railroad. I took up the question of rates with the Baltimore and Ohio Railroad, and pointed out this route. They seemed indifferent

at the time to develop this traffic. Their subordinate officials did not seem to me to rise to the occasion at all. Their Coal Freight Agent turned me down, and their Traffic Manager turned me down, and I had to go to the Receivers. I afterwards went to Mr. Cowen and Mr. Murray, who were the Receivers of the road, and told them they had an abundant supply of coal and very little demand; that we had a great demand for coal and very little supply. It seemed to me a piece of folly to allow that condition of affairs to continue. Gradually the business was developed. This new line was built. Cars were furnished, through efforts made for that purpose, and the business was developed and increased very rapidly. It aided in the development of the iron industries on the line of the Reading Road, and helped to build up their iron and other traffic, besides developing the bituminous coal business. To that cause is largely due the increase of traffic on the Reading Road, much of it coming through the Cumberland Valley to the Reading at Shippensburg. The business at Newberry Junction, on the Northwestern Route, where we connected with the New York Central Road, was, at that time, perhaps five or ten times what it was at Shippensburg, and to-day the business coming to the Reading Road at Shippensburg is the greatest, in volume, of any junction point it has.

By MR. MCREYNOLDS:

Q. Where is Shippensburg? A. In Pennsylvania, about twelve miles from the Maryland and Pennsylvania line.

By JUDGE CAMPBELL:

Q. And connects with both the Cumberland Valley and Western Maryland? A. Yes, sir.

Q. You connected at that point with both the Cumberland Valley and Western Maryland? A. Yes, sir, the Cumberland Valley runs to Harrisburg. We connect with it at Shippensburg, too.

Q. There is to-day, in both directions, southwest and west, an opening of the territory outside of the West

Virginia Central? A. Yes, sir, we opened up the line of the Baltimore and Ohio Railroad. The access to the Southwest is over the line of the Norfolk and Western and the Chesapeake and Ohio Railroad.

Q. That was mainly for merchandise tonnage? A. Yes, sir, mainly for merchandise.

Q. As to the bituminous coal tonnage? A. The bituminous coal tonnage comes largely from the line of the Baltimore and Ohio Railroad. They get quite considerable volume of the line over the Western Maryland.

Q. In addition to the West Virginia Central territory, you have the Fairmount territory, on the B. & O., and also the Somerset region in Pennsylvania, which is tributary to that? A. All the lines of the B. & O. Road, their Connellsville Branch, their line to Pittsburgh.

Q. And as to the Western connection there was brought also through this negotiation of yours, into our field, I take it, the coal originating on the line of the Buffalo, Rochester and Pittsburgh. A. The business from the line of the Beech Creek Railroad that came from the Buffalo, Rochester and Pittsburgh, over the line of the Beech Creek Road to the Reading at Newberry Junction, that business remained in about the same volume it had been. It increased rather than decreased.

Q. There was also a considerable bituminous coal tonnage originated on the lines of the Pennsylvania Railroad, with certain qualities of coal that were desired in our local territory. A. The Pennsylvania Railroad never allowed the bituminous coal from their line of road to come on to the Reading Railroad except at its local stations.

Q. The local stations on the line of the Philadelphia and Reading Railroad? A. Yes, sir.

Q. If you have anything particularly to tell us about what occasioned the growth and development of the merchandise business also, I would be glad to have you state it. A. Prior to the time of my appointment as vice-president of the railroad, the Philadelphia and Reading Railway had very little export or import traffic. Aided by some of the active shipping merchants of Philadelphia, we

induced the opening of several lines of trans-Atlantic steamers, the first one of which ran between Philadelphia and London, afterwards another between Philadelphia and Glasgow, one between Philadelphia and Rotterdam, and one between Philadelphia and Hamburg, then between Philadelphia and Copenhagen. As a result of the establishment of these various lines of steamers, a very large export and import traffic was built up, nearly all of which traffic was gathered and distributed in the West, and hauled over the lines of our road to those steamers, which helped to build up the merchandise traffic on the Reading Railway.

Q. How about the increase in improvement of docks and wharves for the accommodation of export and import traffic? A. Every steamer line we established required, as of necessity, a place where it could receive and discharge its cargo, and a dock was built and assigned for that purpose to each steamer line as it was established.

Q. From your knowledge of the territory tributary to the Philadelphia and Reading Railway Company proper, and its various railroad connections, I would like you to describe the relations in the matter of interchange of traffic which existed between the Central Railroad Company of New Jersey, and the Philadelphia and Reading Railway Company, prior to January, 1901. You can use the maps there, and point out the various points of connection, routes of traffic, and so forth, beginning at the northwestern end and coming around until you strike the road connecting the B. & O. Give a brief, general description. This is the condition prior to January, 1901. A. Outside of the coal traffic the Reading Railway has no access to the business of New York, except by passing over some other lines to New York harbor. The line over which most of the, in fact nearly all of the traffic of the Reading Railway passes to New York, is the line of the Central Railroad of New Jersey, from Bound Brook to New York. It draws its New York westbound traffic from that line, for Philadelphia and points south thereof, over

the line of the Central Railroad of New Jersey, from Jersey City to Bound Brook.

Q. And the reverse? A. The traffic which it gathers on its own line from the south and southwest ——

Q. And connections? A. And from its connections south, passes over the line of the Central Railroad of New Jersey, from Bound Brook to New York, in the opposite direction. That traffic is very large, both passenger, freight, and merchandise.

Q. You are describing conditions which existed prior to 1901? A. Yes, sir, that condition existed prior to 1901, and since 1901. It exchanges also a very large amount of traffic to and from New York waters, which passes over the line of the Central Railroad of New Jersey to Allentown; then west by Reading, and on west to Shippensburg, and over the lines of the Western Maryland, and Norfolk and Western, and Baltimore and Ohio, to the West. It carries, in the reverse direction, a very large traffic. That volume of traffic exchanged at Allentown is much larger even than that which is exchanged at Bound Brook. They carry a very heavy bituminous coal traffic from the line of the Baltimore and Ohio Railroad, and all their western fast freight lines and other business, a large amount.?

By MR. MCREYNOLDS:

Q. Are you speaking prior to 1901 still? A. Yes, sir, that existed both before and since 1901. It has increased through the formation of the Western Maryland new line, which enabled it to carry its traffic more expeditiously. It has been greater in volume in recent years than early, but it existed both prior and subsequent to 1901. The Philadelphia and Reading Railway exchanges a very large amount of traffic coming from the New York Central lines, from the West, which comes to the Reading at Newberry Junction and goes over the Catawissa line, and is exchanged at Tamanend Junction or Hauck's Switch. This coal from the Buffalo, Rochester and Pittsburgh Road, grain and merchandise of various kinds, the fast freight line business to and from the West, mer-

chandise from New York over that road, west, is distributed especially over the New York Central lines.

By JUDGE CAMPBELL:

Q. Are there not also Erie connections at Corning for points west? A. We connect in the traffic with the Erie Road, what we call the Scranton, Erie business, over the line of the New York Central Road to their junction with the Erie. The business goes in both directions in that case, the same as in the others. There is some business that we exchange with the Central Railroad of New Jersey at Tamaqua, but that is less in volume. There is another junction point of the Atlantic City Road with the Central Jersey, where more or less business is exchanged between the two lines.

Q. At Winslow Junction, in New Jersey? A. At Winslow Junction in New Jersey.

Q. Let me call your attention also to a connection at Bethlehem. A. I failed to mention the junction point of the North Penn Railroad with the Central Railroad of New Jersey at Bethlehem, for points in the upper anthracite region, Scranton, Wilkes-Barre, and along there.

Q. Running down on the line of the Central Railroad of New Jersey? A. Yes, sir, in the Lehigh Valley. A large amount of business is exchanged with the New Jersey Central in both directions at Bethlehem.

Q. That existed prior to 1901? A. Prior to and subsequent to 1901.

Q. How about the Perkiomen connection near Allentown? A. The Perkiomen Junction at Allentown is an alternate route with the Bethlehem line, and the grades are a little more favorable on the Perkiomen Road, and that is used for heavy traffic there. It is merely an alternate route with the Bethlehem line.

Q. It is a point reached for the exchange of their traffic between the two systems? A. Yes, sir.

Q. By way simply of illustration, not going into all the detail, but taking the bituminous traffic alone, the interchange by way of Park Junction with the B. & O. in Philadelphia, by way of Hauck's Switch, of the Beech

Creek and Clearfield, and Buffalo and Rochester and Pittsburg, and via Allentown and the Shippensburg connection, kindly state the growth of that change from 1900, prior to the acquisition of the shares of the Central Railroad of New Jersey by the Reading, up to and including 1908. Show the nature and extent of that interchange of traffic. A. Via Park Junction.

Q. Describe what that means. A. Park Junction is a connection of the Baltimore and Ohio Railroad with the Philadelphia and Reading Railway in Philadelphia. We always speak of that business as the Park Junction Route business. The first full fiscal year shown here, which is 1901—this is bituminous coal—was 488,000 tons. 1907-8 is 1,503,000 tons.

Q. In the meantime there has been a gradual increase? A. Yes, sir, and has gone from the one figure to the other by a gradual process. By Hauck's Switch ——

Q. Describe what that means. A. Hauck's Switch Junction is a connecting point between the Central Railroad of New Jersey and the Philadelphia and Reading Railway over which the traffic from the Beech Creek Road to Central Jersey points, east of Hauck's Switch, including New York City, comes. This traffic in 1900 was 944,000 tons. In 1907 was 1,197,000 tons.

Q. Go on to the Allentown. A. The bituminous coal coming by Allentown from the B. & O. was in 1900, 165,000 tons. In 1907-8 was 1,013,000 tons.

Q. In the meantime there has been a gradual enlargement and increase at each of these points? A. Yes, sir, every year there was an increase until the last year.

Q. I wish you would look at that map, and look carefully, and trace the main lines of the Central Railroad of New Jersey, so you can get a clear-minded comprehension of it, and the main line traffic of the Philadelphia and Reading Railway System, in relation to each other, if you have not got that clearly in your mind? A. I have it distinctly in my mind.

Q. Are those lines of railroad practically, or substantially parallel or competing with each other, for the class

of business you have described, or any other than this mere incidental business? A. The business interchanged between these lines is probably from fifty to one hundred fold greater than that for which they compete.

Q. Answer the first question. Are they at all parallel? One of them runs along one valley, at the bottom of one water shed, and the other in a totally different one. A. They compete for an extremely limited amount of traffic.

Q. At these local points of connection? A. Yes, sir.

Q. These local points of connection you have mentioned? A. Yes, sir, they exchange with each other a volume of business, as I have stated, probably fifty fold greater.

Q. Fifty fold? I thought it was several hundred fold? A. I have not gone into the calculation. The one is an insignificant thing, and the other is a business of a tremendously large volume.

Q. Are these through routes, over which this through traffic is interchanged, competitive by any route controlled by one line, with the routes controlling the other? A. Only in an insignificant degree.

Q. They are complementary to each other, are they not? A. They supplement each other.

Q. Without the use of the Jersey Central terminals, if they were in the hands of parties not interested in, or antagonistic to the Philadelphia and Reading Railway System and its ownership, what would be the consequence? A. The Philadelphia and Reading Railway might be largely shut out of this business to and from New York, if they were in the hands of other companies.

Q. And the traffic which is naturally tributary from Reading territory, to and from New York, that would be driven to other lines? A. Largely, yes, sir.

Q. Since the acquisition of the major portion of the shares of the Jersey Central Railroad Company by the Reading Company, one of the defendants here, has there been any change in the organization of the two roads, the Philadelphia and Reading Railway, and the Jersey Central Railroad, as to their being, when used, independently and

separately? A. I think they fight each other harder now than they did before.

Q. Has there been any change in the personnel, so that the Reading people control and undertake to operate the New Jersey Central Company in regard to the distribution of the traffic? A. They have the same president.

Q. Is that the only exception? A. That is the only exception.

Q. State whether the Jersey Central maintains an absolutely and separate and independent organization? A. It does, yes, sir.

Q. The accounting departments are all separate? A. Yes, sir.

Q. The operating departments absolutely separate? A. They have the same purchasing agent and same president.

Q. The purchasing agent is not part of the operating department is he? A. No, sir.

Q. He does not control shipments? A. No, sir, he does not. So far as their operating department is concerned, it is entirely separate. So far as their traffic department is concerned, it is entirely separate. So far as their accounting department is concerned, it is entirely separate. They have the same president, and they have the same purchasing agent. That far, they are connected with each other.

Q. Referring now to your New York tidewater rates, Port Reading, the gathering charge, and the shipping expense, to which you have referred already in your testimony, the rates per ton, and the rates per ton per mile, the average rates per ton, and the average rates per ton per mile from the year 1903-4, to 1907-8, what do they show as to the average rate per ton? A. Is this for anthracite coal?

Q. Anthracite coal wholly. A. A slight decrease.

Q. Shipments of anthracite coal at Port Reading? A. They show a slight decrease.

Q. Tell us what it is? What is the average rate per

ton in the first period of 1903-4? A. One dollar and one cent per ton; 1904-5 ninety-nine and eight-tenths cents per ton; 1905-6, ninety-seven and seven-tenths cents per ton; 1906-7 ninety-six and five-tenths cents per ton; 1907-8, ninety-two and five-tenths cents per ton.

Q. State the rates per ton per mile during these several periods? A. For 1903-4 it is six and five-tenths mills per ton per mile; 1904-5, six and four-tenths mills per ton per mile; 1905-6 six and three-tenths mills per ton per mile; 1906-7, six and two-tenths mills per ton per mile; 1907-8, five and four-tenths mills per ton per mile.

Q. Calling attention to the reduction of the average rate per ton to the reduction relative to the average rate per ton, and the average rate per ton per mile, since the tariff rates have been comparatively the same, how do you account for this reduction. Is it on account of the great increase in proportion of the smaller sizes carrying this smaller rate? A. The rate on the smaller sizes is the lesser rate, and the greater proportion of lesser sizes that is carried, is what reduces the rate. There being an increase in the smaller sizes, the average rate is thereby reduced.

Q. Suppose you refer to the tonnage table, and demonstrate that? A. The tonnage of prepared sizes in 1903-4 was nine hundred and sixty-six thousand tons. In 1907-8, it was nine hundred and ninety-three thousand tons, a very slight increase in tonnage.

Cross examination.

By MR. MCREYNOLDS:

Q. The first percentage contracts with independent operators, which you negotiated in behalf of the Philadelphia and Reading Coal and Iron Company, upon what percentage were they based, and what was the year in which you negotiated them? A. I negotiated the sixty-five per cent. contracts. The negotiations with respect to the sixty per cent. contracts, which these took the place of, were not negotiated by me.

Q. Were the sixty per cent. contracts in existence

while you were connected with the Philadelphia and Reading Coal and Iron Company? A. They were.

Q. Up to what time were those contracts in existence? A. They were in existence up to the time that these sixty-five per cent. contracts were negotiated in 1901.

Q. When did the sixty per cent. contracts, in existence when you went with the Philadelphia and Reading Coal and Iron Company, expire by their term? A. They ran usually for seven years from the period of their negotiation.

Q. Did they not largely expire in the year 1899? A. I do not carry dates distinctly in my mind, so that I have to always refresh my memory as to a date, but they were negotiated prior to the receivership. They ran during the receivership, and expired at irregular times, depending upon the date of their negotiation. They were usually made for five or seven years.

Q. Was there any particular reason for that, sometimes five and sometimes seven years, that you know of? A. None more than what the parties who made them desired, so far as I know.

Q. Coming now to these sixty per cent. contracts, how was settlement made under these sixty per cent. contracts? A. They were based on what was called the tide average price of coal in New York waters. The statistics were made up by the coal companies, and the tonnage was calculated by the coal companies, or by the railroad companies to whom they were delivered, and the accounts were made up, allowing sixty per cent. of the receipts to the party selling the coal.

Q. Was that sixty per cent. of the average price of coals from the Schuylkill region at New York harbor, or was it sixty per cent. of the average price of the coals from that colliery with which settlement was being made? A. It was the average price.

Q. Of the region? A. Of the region.

Q. Was that settlement made between the Coal and Iron Company and the independent operator, or between the railroad company and the independent operator? A.

It was made between the Coal and Iron Company and the operator.

Q. Did the Coal and Iron Company undertake to pay the freight on this shipment to the railroad company? A. It did.

Q. Where was the coal weighed, and upon what weights were the settlements made? A. Weighed at the scales as shown here, at various weigh scales, to which I referred in my previous testimony.

Q. Was settlement made with the independent according to the weights at the scales at those weight points? A. Yes, sir.

Q. Was anything allowed for waste, or for deduction of any other sort? A. The contract specified that there should be an allowance for waste of a sum varying from one to two per cent. That allowance for waste was supposed to cover the drainage of the water that was in this coal when washed at the collieries. It was really that they should not be charged for the water that was there which would drain out of the car. While it was an allowance in a sense, in reality it was an effort to obtain the actual weight of the coal carried, and to charge for the coal, and not for the water that was retained in the coal on account of the process of washing the coal.

Q. In making up the accounts, how was that allowance figured in? A. That allowance was figured at the scales.

By JUDGE CAMPBELL:

Q. The scale weight was so much less than the actual weight? A. Yes sir.

By MR. MCREYNOLDS:

Q. Upon what weights were the freights computed? A. The freights were computed always at the same weights at which the coal was purchased.

Q. The scale weights less this one or two per cent., according to the contract, was the weight for the settlement with the independent miner, and also the weight for the settlement with the transportation company? A. It covers the weight on all sales of coal, all purchases of coal. It was the decisive figure for all purchases and all sales. The settlement was made on the railroad scale weights.

Q. When that coal was sent to tidewater at New York and delivered in the barges, it was passed over screens, was it not? A. Yes sir.

Q. There was a certain loss by reason of the screenings? A. Yes, sir.

Q. Was anything charged against the independent miner, with whom you had the sixty per cent. contracts, by reason of that loss for screenings? A. No, sir.

Q. Whatever that loss was, was it borne by the Philadelphia and Reading Coal and Iron Company? A. That was the property of whoever was the shipper of the coal. The screenings remained on the docks, and those screenings were disposed of as the owner of the property directed.

Q. When the Philadelphia and Reading Coal and Iron Company bought the coal —— A. From the individual operator, it ceased to be the property of the individual operator and they had nothing to do with the loss of screenings at the docks.

Q. The loss of screenings at the docks was borne by the Philadelphia and Reading Coal and Iron Company? A. Yes, sir.

Q. About how much is that loss? A. I would suppose that would be one or two per cent.

Q. Net loss? A. Yes, sir.

By JUDGE CAMPBELL:

Q. One or two per cent., or one or two cents a ton? What do you mean? A. I mean to say by that, that there is one or two per cent. taken out. Those screenings remain on the dock, the property of the coal company.

By MR. MCREYNOLDS:

Q. It was worth something? A. Yes, sir.

Q. Worth about one-third as much per ton as the coal in the car from which it came? A. Depending upon the kind and size of coal.

Q. But on the average it would be worth about one-third as much per ton? A. Yes, sir; I should say so.

Q. If there was one and a half per cent. loss in weight, from screening and the screenings were worth one-third, there would be a real loss of about one per cent? A. Yes, sir.

Q. Am I right about that? A. Substantially.

Q. They do not screen below Pea sizes? A. No, sir.

By JUDGE CAMPBELL:

Q. This applies to Pea sizes, and above? A. Yes, sir.

By MR. MCREYNOLDS:

Q. What was the price of the domestic sizes of coal f.o.b. at tidewater in 1899? A. Do you want me to average that, or give the different sizes?

Q. Domestic sizes, I asked you. A. They are not all of the same price.

Q. Take Stove, Egg and Chestnut—domestic sizes. A. Will you please repeat the question?

Q. What was the price of the domestic sizes of coal f.o.b. at tidewater in 1899? A. I would have to refresh my memory to give you that accurately. That price varied in the months of the year.

Q. What was the highest? A. It was always higher, say, in October.

Q. The high price, what was it?

By JUDGE CAMPBELL:

Q. That continued down to the end of March as the circular price shows? A. Yes, sir.

Q. You say it was always higher in October, and continued down to the end of March? A. Yes, sir; the price was lower in the early Spring months. Those prices varied, so that I cannot carry them in my memory.

By MR. MCREYNOLDS:

Q. Have you the price for later years? A. I have it.

Q. You have it for 1899? A. I have it for 1900. Here it is for 1899.

Q. How much is it? A. For what month would you like to have it?

Q. October, and April. A. October, four dollars and forty cents for stove coal, if that is the size that you want.

By JUDGE CAMPBELL:

Q. There are three domestic sizes? A. October, broken, three dollars and sixty-five cents, Egg, four dollars, Stove, four dollars and forty cents, Chestnut, four dollars and forty cents.

By MR. MCREYNOLDS:

Q. April? A. April, Broken, three dollars and sixty-five cents, Egg, three dollars and seventy-five cents, Stove, three dollars and ninety cents, Chestnut, three dollars and seventy-five cents. This is 1899.

Q. What was the price of coal in 1902, October, after the sixty-five per cent. contracts went into force? A. The price in October, 1902, was, for Broken, four dollars and seventy-five cents, Egg, five dollars, Stove, five dollars, Chestnut, five dollars.

Q. In April, 1902? A. April, 1902, Broken, three dollars and ninety cents, Egg, four dollars and fifteen cents, Stove, four dollars and fifteen cents, Chestnut four dollors and fifteen cents. Shall I state that the strike for four months——

Q. No, I do not care to go into that. A. Between those two periods.

Q. I do not care to go into that. A. I merely mentioned it because on the sheets it happens to show that the strike is in there.

By JUDGE CAMPBELL:

Q. No price? A. There is no price.

By MR. MCREYNOLDS:

Q. Why was the change made from the period of five to seven years, which was the customary period under the sixty per cent. contracts, to a contract for the life of the mine under the sixty-five per cent. contract? A. I do not think we ever had any contracts for the life of the mine.

Q. You did not? A. I think not.

By JUDGE CAMPBELL:

I think you are mistaken about that. I think those few contracts you negotiated in 1901 all ran for the life of the colliery? A. I do not think so. My recollection is I never made a contract for the life of the mine. My impression is, they were made for seven years.

By MR. MCREYNOLDS:

Q. Were the settlements under the sixty-five per cent. contracts made upon the same weights, and with the

same general allowances that prevailed under the sixty per cent contracts? A. They were.

Q. These mines that sell the Philadelphia and Reading Coal and Iron Company their output, does that output vary in quality? A. It is subject to inspection.

Q. Does it vary in quality when subject to inspection? A. No, not particularly. They may strike one part of the vein that has more slate in it, or a little softer than at another spot, but substantialy there is very little variation in the quality.

Q. Does not anthracite coal differ in quality and value? A. You mean at one colliery or another, as between one and another?

Q. Yes, sir.

By JUDGE CAMPBELL:

Q. Are not there one or two of those contracts in the Shamokin District, which are not Free Burning White Ash? A. Yes, sir.

Q. That is what he means. A. There are different prices. The Lykens Valley coal, which is a Red Ash coal, and especially fine quality of coal, is a better quality of coal, sells for more money than the White Ash coal.

By MR. MCREYNOLDS:

Q. Does the Philadelphia and Reading Coal and Iron Company pay a man producing that better quality of coal, a different price from what it pays the man producing a quality less valuable? A. We pay a higher price for the higher priced coal. There is a difference between what we call the Red Ash coal and the White Ash coal. Those figures that are made up on the basis of the coal sold, are made up for White Ash prices, not for Lykens Valley.

Q. The same prices do not prevail throughout the whole region irrespective of the quality of the coal? A. No, sir, if it is the same kind of coal it does. If it is a different kind of coal it does not.

Q. Do those special varieties occur in any of the other regions except the southern anthracite region, if you

know? A. They have a red, or pink ash coal in the upper region that some time ago did command a slightly higher price, but there is not as much difference between the varieties of coal in the upper region as there is in the lower. They have no Lykens Valley coal in the upper region. That is the highest priced coal of all.

Q. You were asked about something that appears in the minutes of the Temple Iron Company, and a request to you as a member of the committee appointed, to do some things which you thought were not the proper thing to do, and which you therefore declined. What was that? A. It was to fix a different price for coal for parties who did not sell the coal to the companies, from those who did.

By JUDGE CAMPBELL:

Q. The rate? A. Yes, sir, a different rate.

By MR. MCREYNOLDS:

Q. You mean a different flat rate? A. Yes, sir.

Q. What is the cost of selling anthracite coal at New York at tidewater? A. That depends upon the volume entirely. I should say that some sum between five and fifteen cents would represent the fair cost of doing it.

Q. The sixty-five per cent. contracts, you tell me, went into effect in the latter part of 1901? A. I believe that was the date.

Q. You made the freight rates upon anthracite coal for the Philadelphia and Reading Railway Company while you were with it? A. They were made under my direction.

Q. With whom did you consult about those rates? A. With the president of the company. There were comparatively few changes in them.

Q. What effect did the rates which were being observed by the railroads from the other anthracite districts have on the rates from the district served by the Philadelphia and Reading Railway? A. We could not maintain a higher rate than the other districts and treat our operators justly, and we could not take a lower rate than the other districts and treat our own companies

justly, so that naturally all the rates came practically to the same basis. They were not in all cases exactly the same, but substantially they were the same.

Q. Why could you not charge a higher rate than was charged by the railroads reaching the other anthracite districts? A. Because our operators could not mine their coal cheaper than other operators could, and they would be at a disadvantage as compared with them.

Q. Why could you not charge a less rate than they did? A. Because we did not want to lose the money.

Q. Then the condition was such that, in a trade way, the competition existing between these various regions necessitated, you think, that the freight rates upon all the roads should be substantially the same? A. That would seem to be equitable to me.

Q. And was that the fact? A. That they were the same?

Q. No, was that the reason why it was necessary to make them the same, because of the competition existing between the coals moving from the various regions? A. There was a competition as to markets, as to prices of coal. If an operator in our region paid a higher rate, he could not naturally compete on an equality with another from another region who paid a lower rate.

Q. Is your line the shortest line from any anthracite coal region to tidewater at New York, or did you have the longest line? A. We had shorter lines than some and longer lines than others.

Q. What was the longest route over which you carried coal at the ordinary published price to tidewater at New York? What mine in your district was the farthest from tidewater? A. North Franklin Mine. It came around by the Reading Road to New York and was the farthest distant mine on our road.

Q. Which was the nearest mine to tidewater at New York? A. Passing over the Reading Road, the nearest mine was any one of those close to Pottsville.

By JUDGE CAMPBELL:

Q. St. Clair, for instance? A. Yes.

By Mr. McReynolds:

Q. How far are the Pottsville mines from tidewater? A. You mean New York tidewater now?

Q. Yes. A. If I remember that distance, one hundred and seventy-six miles.

Q. How far is it to the North Franklin, the farthest mine from New York? A. About fifty miles further.

Q. Which was the most expensive haul? A. From North Franklin.

Q. Was there any reason except distance why it was the most expensive haul? A. Yes, there were grades and planes and other reasons why it was a more expensive haul from North Franklin.

Q. Why did you haul coal from the North Franklin Mine at the same price that you hauled coals from the mines near Pottsville? A. That had been a practice that had been in effect almost from time immemorial, and was continued during my administration. It was supposed that, in that particular region, the collieries should all be put upon the same basis.

Q. Why was it supposed that they should be put upon the same basis? A. So as to put them on an equality as to power to do business.

Q. They were all in competition with each other, were they not, for selling their coal? A. Yes.

Q. And, in order to enable them to compete on equal terms, you thought it was proper to give them the same freight rate? A. That had been the practice for years.

Q. Did you make any difference in the rate which you gave to mines the output of which was more valuable than the mines which had a less valuable output? A. We did, in one instance. The Lykens Valley collieries had for a time a higher rate than the other collieries.

Q. But you did away with that when? A. I think that was 1906.

Q. Before your freight rates were made, was your president accustomed to confer with the presidents of the other coal carrying roads? A. As to the rates?

Q. Yes. A. I do not think he did. I do not recall his doing it.

Q. You and he always had information about what those rates were to be before you made a change in your schedule? A. We always got tariffs of other roads. All roads interchanged with each other.

Q. When changes were made, were they made by all the roads leading into the coal regions at the same time? A. If they found it out, they would be likely to do it. I do not think one would let another make a lower rate than he did, if he knew it.

Q. Why not? A. Because he would think the other fellow would get on advantage over him.

Q. How would he get an advantage over him? A. He would increase the volume of his business at the expense of the others.

Q. How would that come about, practically, I mean? A. By having an advantage of lesser cost.

Q. We are not railroad men, and we would like you to tell us how that in practice would work out. How would he increase his traffic by lowering his rate, at the expense of the other carrying roads? A. Take a simple illustration outside of coal ——

Q. No, let us stick to coal. A. Take wherever there is a competition as to business; the fellow that sells at a lower price for the same goods will get the greater volume of business, I take it, or the fellow that has an advantage over another.

Q. So that we may understand the situation, let us suppose that the Lehigh Valley Railroad reduced its freight charges to New York harbor from the anthracite coal mines to a dollar and a quarter. Would it be necessary for the Philadelphia and Reading to reduce its? A. I would think that it ought to do so, in justice to the operators on the line of its road.

Q. If it did not do so, what would be the effect on the Philadelphia and Reading road? A. I think that the operator would suffer a loss and perhaps his colliery would cease to do business and the Reading Railroad would finally lose his traffic, as a result thereof.

Q. All these coals, in other words, were in competition

at New York harbor and the one that could sell cheapest, you think, would get the business, and the freight rate would determine who could sell the cheapest, probably; is that right? A. The first part of that question I will answer. The one who could sell the same goods at the least price would get the greater share of the business, up to his power to produce. As to the next part of the question, I would like to hear it again.

(Question read.)

A. The tendency of the freight rate, being lower in the one case, would be to enable the person who had the benefit of the lower rate to sell it cheaper.

Q. In 1898, 1899 and 1900, what roads did you regard as competitors of the Philadelphia and Reading Railway Company for the carrying of anthracite coals from the mines to tide at New York? A. I did not regard any road as a competitor of the Philadelphia and Reading Railway for the carrying of the coal on the line of the Reading Railway. I did regard all of them as competitors in the market for the sale of coal, after being carried there. These other roads had no access to the mines on the lines of the Philadelphia and Reading Railway, and it was impossible for them to carry it.

Q. You mean that they were not competitors in the sense that they could not carry the same carload of coal? A. Yes.

Q. But they were carrying similar coals from a nearby region, were they not? A. Yes; they were competitors in the market, but not competitors for the carriage of this particular coal that was on the line of the Reading Railway; competitors in the market in New York for the sale of coal.

Q. They were all carrying coals from the same general region to New York, for sale in competition? A. Competition of market, yes.

Q. Which roads were engaged in that? A. All of them.

Q. Name them please, for 1898, 1899 and 1900. A. Delaware, Lackawanna and Western; Lehigh Valley;

Central Railroad of New Jersey; Pennsylvania Railroad; the Delaware and Hudson;. New York, Ontario and Western.

Q. New York, Susquehanna and Western? A. New York, Susquehanna and Western, prior to the time when its road, or coal company, was merged with the Erie; and the Erie road.

Q. Why has the rate over the Philadelphia and Reading road to tidewater at Port Reading for f. o. b. coal been one dollar and fifty-five cents, whereas it has generally been one dollar and sixty cents over roads getting into other points on the New York Bay? A. Port Reading is some distance down the bay from New York, and the cost of carriage from Port Reading is higher than it is from the points immediately opposite New York. The boat freight and discharging are five cents a ton higher.

Q. You said that when you went with the Philadelphia and Reading Railroad Company, and for some time thereafter, the mines along the road were not producing to their full capacity. Am I right in that? A. You are. They were producing to their capacity at certain times of the year, but they did not work throughout the year. There were many times that they were idle. In that sense, they were not producing to their full capacity.

Q. What arrangement was made, or how was it determined what each mine should produce, how much of its capacity each mine should produce during that period? Was a mine operator allowed to run just as he chose, as many days as he chose, or was there some sort of an arrangement under which each mine was run a certain number of days, or produced a certain part of its capacity? A. As long as the car supply lasted, they were all, as a rule, allowed to run. When the road blocked because of the inability to free the cars of their coal, they were all stopped.

Q. How about the market? Suppose the market stopped? A. There was a supply of coal always for the market. If the mines stopped it was because the cars were

loaded with coal and there was no longer a car supply for the collieries; but that did not stop the supply of coal for the customers, because there was more than an ample supply for the customers on cars at the destination.

Q. Suppose the customers stopped? Did you allow every man to run as he saw fit, irrespective of the demand for coal, or was there some arrangement under which he gave out a certain part of his possible production? A. The operators, as a rule, stopped by days. A man would not stop, unless the lack of car supply shut him down, before the day was out.

Q. During this time the Philadelphia and Reading was producing coal along its own lines? A. Yes.

Q. And it was buying coals under the sixty and sixty-five per cent. contracts? A. Yes.

Q. Now when the market's demand shut off or declined were those mines permitted to run or was there any arrangement? A. As long as the car supply lasted, they were permitted to run. When the car supply gave out, they were stopped.

Q. You were asked something about the price paid by one railroad to another for coal interchanged; how was the rate to be paid by the Philadelphia and Reading Railroad to roads which interchanged with it, determined? A. How was the division of the whole rate between the two roads determined, is that the question?

Q. Yes. A. The gathering charge was first deducted from the rate.

Q. How was the gathering charge determined? A. As I say to you, the charge was for this region, this way; where the route was longer and the expense greater, it was thirty cents a ton; if sent west, it was fifteen cents a ton. That was deducted from the through rate and the remainder was prorated, usually on a mileage basis between the roads carrying the coal, and that rate was prorated from the point of shipment, which was the scale, to its destination, usually on a mileage prorate, but not always on a mileage prorate. Substantially, however, that was the basis of the division.

Q. What road delivered to the Reading anthracite coals going east? A. There was practically no anthracite coal delivered to the Reading going east. Occasionally there were a few cars that came from a colliery like the Morea, which I have stated as an exception, and once in a while there was some of this coal that was on the line between Pottsville and Tamaqua, that came from the Lehigh Navigation Company's mines. That was sent over to Richmond for the purpose of distribution and, in addition to that, coal was delivered by the Lehigh Valley to the Reading at Bethlehem and brought down the line of the North Penn to Philadelphia and distributed here.

Q. To what roads did the Philadelphia and Reading deliver anthracite coals that were to go east? A. It delivered it to the Pennsylvania Railroad; it delivered it to the Baltimore and Ohio Railroad; to the Western Maryland, and Norfolk and Western. These latter shipments were to the south, but the coal was carried southeast on the Reading Road, and therefore we called it eastern shipments.

Q. You were asked about the bituminous coal business of the Philadelphia and Reading Road. Geographically where does most of the bituminous coal that moves over the rails of the Philadelphia and Reading Railway Company to New York originate? A. About two-thirds of it originates on the lines of the Baltimore and Ohio Railroad.

Q. Tell us geographically where that is, please? A. From Fairmont, if you are familiar with the stations on the line of the Baltimore.

Q. If you will give us the part of the State, it will help. A. West Virginia and southwestern Pennsylvania, and some in western Maryland.

Q. How does that coal move? Where does the Philadelphia and Reading Road take it up and where does it leave it? A. Going to New York?

Q. Yes. A. At Shippensburg, at the point of junction with the Western Maryland, the Baltimore and Ohio hav-

ing theretofore delivered it to the Western Maryland; carries it by way of Reading to Allentown and delivers it to the Central Railroad of New Jersey, in the one case, if it is going to New York waters proper; if it is going to Port Reading, it hauls it over its own line to Port Reading and tranships it over the Port Reading piers.

Q. Some of that coal, therefore, moves from Shippensburg straight across to Reading and then down? A. To Norristown.

Q. Near Philadelphia? A. Near Philadelphia.

Q. And thence over to Port Reading Junction? A. Yes, sir.

Q. And thence to Port Reading or the waters of New York bay? A. Yes, sir.

Q. How far does the Philadelphia and Reading Railroad carry that bituminous coal that moves along the line I have just described? A. About two hundred and forty miles.

Q. What does it get for carrying it there and delivering it in barges? A. It gets about ninety cents; eighty to ninety cents.

Q. That is its part of the —— A. Through rate.

Q. What is the through rate from West Virginia on that coal to Port Reading or the waters of New York bay? A. Usually one dollar and sixty-five cents from what they call the nearby region, that is, the Connellsville branch of the Baltimore and Ohio, Somerset, Cumberland, and points on the West Virginia Central and Pittsburgh Railroad; and twenty-five cents higher when it comes from what they call the gas coal region of West Virginia, which is in the vicinity of Fairmont.

Q. Is that coal delivered over the docks into barges at at the rate you have given? A. It is.

Q. Is it delivered at the same terminals where the Philadelphia and Reading anthracite goes? A. It is.

Q. That is a profitable traffic to the Philadelphia and Reading, is it not? A. I think so, yes.

Q. There was a traffic arrangement between the Lehigh Coal and Navigation Company and the Philadelphia

and Reading Company, giving the former a right to use the tracks between Tamaqua and Pottsville? A. It does not reach so far as Pottsville. It runs to these mines between Pottsville and Tamaqua.

Q. Does it give them the unlimited right to do that for the output of these mines? A. Yes, sir.

Q. Upon what sort of a trackage basis? A. That is estimating the value of the property and say—I do not remember the figures exactly—but say forty per cent. of it allowed for the use of the tracks. I cannot give you the figures exactly now.

Q. Is it so much a ton, or is it so much per year, or so much per car, or what? A. I do no recollect distinctly the terms of the contract.

Q. But it is some basis of payment according to the tonnage carried, is it? A. Yes.

Q. Did the Central of New Jersey operate trains over those tracks, too? A. That was a Lehigh Coal and Navigation Company arrangement.

Q. And the Central of New Jersey has never operated trains down there? A. No, sir.

Q. Where are the anthracite coals that move from the mines by way of the New Jersey Central delivered on New York harbor? A. Principally at Port Johnson. They deliver some at Elizabethport, but principally at Port Johnson.

Q. Where are the bituminous coals that reach tidewater by way of the tracks of the New Jersey Central, delivered into barges at tidewater at New York bay? A. Principally at Elizabethport.

By MR. TODD:

Q. Is Port Liberty on New York harbor now used as a terminal for any purpose by the Philadelphia and Reading Railway, or in recent years? A. It has been occasionally used, to a slight extent, when there was interference by ice at Port Reading, or for some reason of that kind; but it is practically, unless on special occasions, not used as a terminal.

Q. And has not been, except in the sense you speak

of, since about what year? A. Only to a small extent within any period from seven to ten years. For a while after the Port Reading Railroad was constructed, Port Liberty was used rather freely; but gradually that business decreased and it was transferred to Port Reading.

Q. In the price circulars of the Philadelphia and Reading Coal and Iron Company, the price is quoted as at Port Liberty and not at Port Reading; will you please explain? A. Port Liberty is used as a basis price, that being the established New York price. As the boat rate was five cents higher from Port Reading than from Port Liberty, it was more convenient to use Port Liberty as a basis.

Q. The fact is that Port Reading is the place where the coal is delivered? A. Yes.

Q. And that the circular price at Port Reading is five cents less than at Port Liberty, as shown on the circulars? A. Yes; because the boat rate is five cents a ton higher.

Q. Do you recall what the freight rate on anthracite coal to New York harbor was in 1892, say? Was it the same as in the 1896 tariff, from which you testified to-day? A. If I recollect the rate to New York directly, it was one dollar and seventy-five cents.

Q. On the prepared sizes? A. On the prepared sizes.

Q. And what on Pea and Buckwheat? Do you recall that? A. I should say one dollar and forty-five cents on Pea and one dollar and twenty-five cents on Buckwheat.

Q. That was in 1892? A. Yes. The prices change so often that my recollection may not be accurate, but, so far as I recollect it, that is the figure.

Q. That was the freight rate? A. Yes, that was the freight rate.

Q. That excludes this forty cents allowance which has appeared in the testimony heretofore? A. Yes.

Q. I notice that the broken size on the circulars goes up and down with the other prepared sizes. I mean by that, that it is reduced in April and then is increased ten cents thereafter until the Winter schedule takes effect; but in fact, as shown by the actual prices which are in the

record, the price of the broken seems to remain the same the year round. What is the explanation of that? A. The explanation of that is that broken coal is usually sold on contract, and that contract price is continued throughout the year. The domestic sizes are not sold on contract, and therefore the price received at the mines increases on the other more largely than the broken does, the broken having been sold at a fixed contract price which is good throughout the year.

Q. The price of broken coal then remains fairly constant throughout the year? A. It does for all that which is contracted for under yearly contracts. That remains exactly the same. The remaining small portion that is not contracted for, varies as the other sizes do.

Q. But the small portion which is not under contract is not large enough to influence greatly the price as fixed by the contracts? A. That is right. For illustration for a long period of time the Philadelphia and Reading Coal and Iron Company contracted with the New York Elevated Railroad Company for its supply of broken coal. This being a large amount of coal, more than half of the total amount produced by the Philadelphia and Reading Coal and Iron Company, fixed the price for this large volume throughout the year at the same figure, and therefore the price did not materially vary.

Q. Referring to the several varieties or kinds of anthracite coal in the southern region, are they kept distinct in the sizes below Pea? A. In some instances they are; in others, they are not.

Q. As a rule? A. The Shamokin coal, the Lorberry coal, and the several forms of White Ash coal are not, as a rule, kept distinct in sizes below Pea; but the Lykens coal, being a more valuable product, is kept distinct.

Q. In the southern region what proportion of the whole is what you call free-burning, White Ash? A. Two-thirds of the whole, I should say at a guess.

Q. How much of a yard is there at Port Reading? You referred to the Port Richmond yard as being able to accommodate five thousand cars. How many cars

could the Port Reading yard accommodate? A. I should say fifteen hundred.

Q. That thirty cents gathering charge which you spoke of in your direct testimony referred to the southern region, the region in which the Reading Railroad lines are located alone, did it not? A. No, sir, that referred to the whole region.

Q. To the whole anthracite region? A. Yes; when the traffic was eastbound.

Q. Northern, Middle and Southern Fields? A. Yes, sir.

Q. You spoke of a part of the through rate being apportioned for the terminal charge; just what service is included in that? A. That includes the cost of switching the cars of coal on to the piers and dumping them through the chutes into the vessels.

Q. It begins, in other words, where the switching begins? A. It includes the switching, the discharging of the coal from the cars into the vessels, and the return of the empties.

Q. The return of the empties to the yard? A. Yes.

Q. In saying that the traffic exchanged between Philadelphia and Reading Railway and the Central Railroad of New Jersey was fifty or a hundredfold greater than that for which they were competitors, you did not consider, did you, that coal traffic centering at New York was competitive, as between the railway carriers? A. That was a competition of markets, not a competition of carriage of traffic, and I did not refer to it in that. You use the words coal traffic, which may mean either bituminous or anthracite, or both.

Re-direct examination.

By JUDGE CAMPBELL:

Q. The little competition between the Central Railroad Company of New Jersey and the Philadelphia and Reading Railway Company for traffic was, I understood from your testimony, confined to a little local traffic at the several junction points which you have mentioned? A. It is.

Q. That is all the competition there ever was? A. It is.

Q. Now, referring to my Brother McReynolds' question as to the traffic of the mines, you stated that when the capacity of the railroad to supply cars had failed and no more cars could be supplied, they all stopped. What was the reason why the capacity of the railway company to furnish cars was exhausted? Was it because the markets would not take the coal and the coal could not be sold? A. It was because the coal could not be unloaded for one reason or another, but usually because the market would not take the coal.

(At 5 P M. adjourned until Wednesday, April 28th, 1909, at 10.30 A. M., to meet at same place.)

Room 324 Federal Building, Philadelphia, Wednesday, April 28th, 1909, at 10.30 A. M.

Present:—The Examiner.

Counsel Present:—Messrs. McReynolds, Todd, Campbell and Moot.

W. G. BROWN, for the defendant The Philadelphia and Reading Coal and Iron Company, having been recalled, was examined as follows:—

By JUDGE CAMPBELL:

Q. You have already testified that you are secretary of the Philadelphia and Reading Coal and Iron Company? A. Yes, sir.

Q. You have additional duties to those usually attending the office of a secretary, have you not? A. Yes, sir.

Q. That is to say, you are the accounting officer, you are also the custodian of the old books and papers and records and archives of the Philadelphia and Reading Coal and Iron Company pertaining to the secretary's department and the accounting department? A. Yes.

Q. I understand the real estate papers are in the hands of the Land Agent at Pottsville? A. Yes.

Q. Please produce and exhibit to counsel for the Government the sixty-five per cent. contracts now in effect with the Philadelphia and Reading Coal and Iron Company. A. I have them here.

(The witness produced and exhibited to counsel the contracts referred to.)

Q. Have you examined them particularly? A. Yes, sir.

Q. State in general whether they each determine the years during which each of them runs. A. Each and all of them run during the life of the colliery.

Q. Take up, in the first place, the contracts for those collieries that sell free burning White Ash, and give the names of them. A. The Pine Hill Coal Company, St. Clair Coal Company, Buck Run Coal Company, E. White Company, and the Enterprise Coal Company are all free burning White Ash.

Q. They are to be paid at the rate of sixty-five per cent. of the f. o. b. price at New York tide, the general average f. o. b. price of free burning White Ash coal for the Schuylkill region on prepared sizes? A. Yes. And the other provisions in regard to the Pea, Buck and Rice.

Q. Select and give us the name of the two different collieries that have a different basis. A. The Excelsior Coal Company is one. They mine that from two collieries, the Excelsior Colliery and the Corbin Colliery. One is Shamokin coal and the other is Red Ash coal. In those collieries they are paid on the basis of the New York harbor price received by the Philadelphia and Reading Coal and Iron Company for those kinds of coal.

Q. Do these Red Ash and Shamokin coals command a higher price than free burning White Ash at New York tide markets? A. Yes. On the circular they are a higher price, a different price.

Q. What is that difference? A. On the Shamokin coal at New York harbor it is twenty-five cents per ton over the White Ash. The Schuylkill Red Ash is fifty cents per ton advance over the White Ash.

Q. This rate you are speaking of applies only to the prepared sizes of each? A. The prepared sizes of each;

yes. The New York harbor prices only give the prepared sizes of coal.

Q. When did the Philadelphia and Reading Coal and Iron Company begin to purchase coal from the operators in the Schuylkill region? A. From its organization. According to a statement I have here, the first purchases appear to have been made in 1873.

Q. What quantity of coal was purchased in that year? A. 718,940 tons and 14 hundred-weight.

Q. Do you recall that the sixty-five per cent. contracts for the purchase of coal, which have been referred to, were negotiated along early in the year 1901? A. Yes.

Q. Shortly after the termination of the strike of 1900? A. Yes.

Q. Do you recall that the men went back to work after that strike about the first day of November, 1900? A. Yes, sir. October 26th, I think.

Q. The advance in the cost of producing coal began at that date? A. Began October, 1900.

Q. So far as it depended upon the increase of miners' wages? A. Yes.

Q. As of what date did these sixty-five per cent. coal purchase contracts take effect? A. They took effect on November 1st, 1900.

Q. Simultaneously with the increased cost of producing coal resulting from the advance in the miners' wages? A. Yes.

Q. Refresh your recollection, and state whether any material, and what increase of the quantities of purchased coal by the Coal and Iron Company there was in the period following the negotiation of those contracts. A. No very material increase at any time. Practically the same.

Q. The output of the collieries was substantially the same as it had been before? A. Yes, sir. The average purchase was a little over a million tons per year each year.

Q. You did not increase or enlarge your purchase contracts? A. No, sir.

Q. The contracts that were negotiated at that time were with the same people with whom they had existing contracts? A. About the same people; yes, sir. I do not think there have been any new contracts negotiated since.

Q. Attention has been called by the Government's counsel to the reports made by the purchasing companies to Mr. Ruley, the statistician. Embody in your answer in the record a form of one of those reports. A. This is a copy of a letter that we send monthly to Mr. Ruley, giving him the average f. o. b. prices New York harbor for the preceding month.

"PHILADELPHIA, April 6th, 1909.

Mr. W. W. Ruley, Accountant, Pennsylvania Building, Philadelphia.

DEAR SIR:—The following average prices f. o. b. New York Harbor were received for our Mahanoy "White Ash" Coal during the month of March 1909:—

	TONS.	AVE.	AMOUNT.
Broken	19,772.00	4.20	83,042.40
Egg	4,781.00	4.95	23,665.95
Stove	8,957.00	4.95	44,337.15
Chestnut	12,635.00	4.95	62,543.25
Pea	17,638.00	2.97.65	52,499.10
Buckwheat	18,496.16	2.41.83	44,730.58
Rice	12,767.01	1.70.79	21,805.05
Barley	14,776.00	1.38.77	20,504.90
Pea and Dust	1,085.00	1.54.71	1,678.55
Total	110,907.17	3.19.91	354,806.93

Yours truly,

(Signed) W. G. BROWN,
Secretary."

Q. What is the basis of these data? A. That is the monthly prices received by us at New York harbor for coal actually sold by us at New York harbor during each

month, the average price for each kind and the size of the coal.

Q. Is that governed or in any way affected by depreciation or other reclamations that are made by purchasers of defective coal, or otherwise? A. In no way whatever.

Q. In other words, you report the average invoice price to your customers? A. Yes.

Q. And it is for the coal that is actually weighed over the scales at the wharf and goes into the bottom? A. Yes.

Q. I will thank you to put into the record in the same way the form in which Mr. Ruley communicates to you the general averages of the coal sold f. o. b. New York tide for your region. A. This is a printed copy showing the prices furnished by Mr. Ruley, the accountant, giving us the monthly general average free on board prices realized for anthracite coal sold at or near New York from the Schuylkill region:—

"General Average (free on board) prices realized for Anthracite Coal, Sold at or near New York, between Perth Amboy and Edgewater, during

MARCH 1909.

Coal from Schuylkill Region.	Average f. o. b. prices realized.
Lump	
Broken	4.2005
Egg	4.9500
Stove	4.9505
Chestnut	4.9508
Pea	2.9947
Buckwheat No. 1	2.4047
Buckwheat No. 2	1.7079
Buckwheat No. 3	1.3877
Screenings	

BUREAU OF ANTHRACITE COAL STATISTICS.

Philadelphia, April 8, 1909. W. W. RULEY,
Chief of Bureau."

Q. I will thank you also to put in the record the form in which Mr. Charles P. Neill, the person appointed by the Coal Strike Commission to make the report upon which the sliding scale of wages should be based, furnishes you the data for that purpose. A. It is as follows:—

"1429 NEW YORK AVENUE, WASHINGTON, D. C.

DEAR SIR:—The average price of white-ash coal, of sizes above pea coal, sold at or near New York, between Perth Amboy and Edgewater, and reported to the Bureau of Anthracite Coal Statistics, for the month of Mar.—1909 was $4.76 per ton f. o. b.

This price entitles all miners and mine workers included in the awards of the Anthracite Strike Commission to an increase of 5% on the rates of wages fixed in said awards.

Respectfully,
(Signed) CHAS. P. NEILL."

Q. Take up the subject of the sales of purchased coal under the sixty-five per cent. contracts shipped to New York harbor from November 1st, 1900, when those contracts were in effect, to June 30th, 1908, inclusive, and show the general result of the total sales during that period, the amount of coal, the total cost, the average cost, the amount to be paid, the average amount to be paid, and the amount of your receipts. State the total of all the operations during that whole period. A. During the period from November 1st, 1900, to June 30th, 1908, the Coal and Iron Company shipped to New York harbor 1,659,802 tons and 9 hundred-weight, which cost on the average two dollars and sixty-five and four-tenths cents at the mines. We paid for that $4,404,863.34. We received an average of two dollars and seventy-seven and eight-tenths cents per ton, amounting to $4,610,545.10, making an average profit of twelve and four-tenths cents a ton, and a gross profit of $205,681.76.

Q. I notice by the table before me that both in respect of Broken coal and Pea coal there seems to have been a loss? A. Yes, sir.

Q. In the case of Broken coal how much did that amount to? A. In the case of Broken, we lost an average of ten and six-tenths cents per ton, or a total of $11,408.91. As to Pea coal we lost three and three-tenths cents per ton, or $4,330.75.

Q. Neither Broken nor Pea are domestic sizes of coal? A. No, sir.

Q. What was the result of the eight months after these sixty-five per cent. contracts went into effect, ending June 30th, 1901? A. The total profit on 130,859 tons and 2 hundred-weight, sold during that period, was an average of thirteen and six-tenths cents per ton, amounting to $17,788.87.

Q. I notice on both Broken and Egg you show a slight loss. A. Broken coal showing a loss of ten and five-tenths cents per ton, and Egg showing a loss of seven and nine-tenths per ton.

Q. The amount of Broken was small, a little less than four thousand tons for the eight months? A. Yes, sir.

Q. As to Egg? A. As to Egg, 11,342 tons and 19 hundred-weight, on which we lost seven and nine-tenths cents per ton, or a total of $897.23.

Q. The proportion of this coal as to the other prepared sizes as to the total was comparatively small? A. Yes, sir.

Q. Take next for the year ending June 30th, 1902. A. The year ending June 30th, 1902, we sold 156,710 tons sixteen hundred-weight, on which we made a profit of three and one-tenth cents per ton, amounting to $4901.20. In the year ending June 30th, 1902, we lost on Broken coal thirty and five-tenths cents per ton, or a total of $1557.46. On Egg coal we lost eleven and four-tenths cents per ton, or a total of $1205.63, and on Pea coal we lost three and seven-tenths cents per ton, or a total of $552.27. For the year ending June 30th, 1903, the total sales at New York harbor were 132,228 tons and fifteen hundred-weight, on which we made an average profit of fifteen and five-tenths cents, or a total of $20,481.97. The loss on Broken was seventeen and nine-tenths cents per ton, amounting to $1843.13.

Q. Were there any losses on any other sizes? A. In 1903 that was the only loss, on Broken. For the year ending June 30th, 1904, the total sales were 255,454 tons fourteen hundred-weight, on which we made an average profit per ton of sixteen cents, or a total of $40,759.07. On Broken that year we lost five cents per ton, amounting to $307.60. On Pea we lost six cents per ton, amounting to $1446.19. For the year ending June 30th, 1905, the sales at New York harbor were 248,998 tons eighteen hundred-weight, on which an average profit was realized of thirteen and six-tenths cents per ton, amounting to $33,815.76. The loss on Broken during that period was eight and four-tenths cents per ton, amounting to $2012.-34. On Pea the loss was four and seven-tenths cents per ton, making $352.61. For the year ending June 30th, 1906, we sold at New York harbor 223,415 tons nineteen hundred-weight, on which we made a profit of twelve and four-tenths cents per ton, amounting to $27,666.14. The loss on Broken during that year was nine and three-tenths cents per ton, amounting to $1998.53. The loss on Pea was four cents per ton, amounting to $601.13. For the year ending June 30th, 1907, the sales at New York harbor were 243,076 tons and eight hundred-weight, on which a profit was realized of twelve and nine-tenths cents per ton, amounting to $31,341.83. The loss on Broken during that period was nine and two-tenths cents per ton, amounting to $1519.29. The loss on Pea was two and six-tenths cents per ton, amounting to $404.49. The sales at New York harbor for the year ending June 30th, 1908, were 269,057 tons and seventeen hundred-weight, on which a profit was realized of ten and eight-tenths cents per ton, amounting to $28,926.92. The loss on Broken was eight and four-tenths cents per ton, amounting to $1754.89. The loss on Pea coal was four cents per ton, amounting to $1836.07.

Q. State whether in estimating this cost or profit or loss, anything is included for the cost of selling the coal? A. No; nothing.

Q. Why? A. Because we are not put to any additional

expense to sell this coal, as we have already an organized force sufficient to sell our ten million tons of coal, so that to sell this one additional million tons does not require any addition in any of our expenses whatever.

Q. State whether from the abrasion of prepared sizes of coal in the movement from the collieries to the scales and from the scales to the wharf yards and up to the scales where the coal is weighed out over screens into vessels again, there is an item of so-called wastage? A. We calculate the wastage is about one per cent. on the prepared sizes of coal.

Q. This term "wastage" does not mean that there is any loss in the weight of the total cargo of the car itself, does it? A. No, sir; taking the screenings and good coal that is left, there is as much screenings and coal as there was when it originally left the mines.

Q. What you have to pay for? A. Yes, sir; what we have to pay for.

Q. But it is from the abrasions of the prepared sizes on account of the reasons which I have mentioned and the re-screening of the coal into the vessels, that this reduction in quantity of prepared sizes results? A. Yes, sir.

Q. You say that averages about five cents a ton? A. About five cents a ton.

Q. About one per cent.? A. Yes, sir.

Q. It would not amount to so much as that on twenty-five cent coal or a dollar and twenty-five cent coal? A. They transfer sizes and kinds. We sometimes sell Red Ash for White Ash coal to make up a cargo. We sell a higher price coal to make good, to fill up a vessel.

Q. Is the five cents a ton which you have mentioned an ample allowance to cover this so-called wastage? A. Fully sufficient, yes, from our records that we have, average of loss.

Q. Taking this element of wastage resulting from abrasions and reduction of sizes of coal, and making adequate and proper deductions from your profit on those accounts, what is the general result for the entire period? A. On the basis of allowing five cents per ton wastage

on the coal shipped to New York harbor, would amount to $82,990.12, which deducted from the $205,681.76, would leave a net profit remaining of $122,691.64 on our total coal shipped to New York harbor from November 1st, 1900, to June 30th, 1908, inclusive.

Q. Cover the same period, from November 1st, 1900, to June 30th, 1908, inclusive, since the increase of wages was allowed as the result of the strike of 1900. A. On our total coal purchased?

Q. On your coal purchased, regardless of point of consumption or shipper. A. Showing the profit on all the anthracite coal purchased by the Philadelphia and Reading Coal and Iron Company from November 1st, 1900, to June 30th, 1908, inclusive; total purchases were 8,515,146 tons and seventeen hundred-weight, at an average cost of two dollars and sixteen cents a ton, amounting to $18,393,463.48. The average receipts per ton were two dollars and thirty and two-tenths cents, amounting to $19,599,710.08. The profit per ton was fourteen and two-tenths cents per ton, amounting to $1,206,246.60.

Q. A very large proportion of this purchased coal, as well as your other coal, goes into line, State and other local traffic trade? A. Yes, sir.

Q. Where the mine weights or scale weights proper apply wholly? A. Yes, sir.

Q. And no question of wastage or loss from that connection arises? A. No question of loss arises for wastage, no, sir.

Q. When there is an actual loss either with regard to your purchased coal or the company's coal by reason of wrecks or thefts and so forth and so forth, how do you recover that? A. From the Railroad Company, from the transporting company.

Q. The Railroad Company holds it? A. Yes, sir.

Q. Neither the shipper nor yourselves as purchasers, or consignees, are affected thereby? A. No, sir.

Q. By loss from thefts or wrecks or otherwise? A. No, sir.

Q. These settlements for the coal are made on the scale weights? A. Yes.

Q. But all are made regardless of the point of destination or consumption, on the basis of the New York tide, f. o. b. prices that you have testified to? A. Yes.

Q. A large amount of this coal, I take it, is consumed within a moderate, more or less distance from the mines? A. Within one hundred miles on our own line, principally in the city of Philadelphia and its environs.

Q. Where in many instances the transportation rates are even less than the through tide rates? A. Yes, sir.

Q. Although to some of them the rates are higher? A. Yes, sir.

Q. When the rates are higher, the price is higher, I take it? A. Our coal that goes to local points and to the south is generally sold at the mine's price. The freights are paid by the consignee.

Q. The freights follow? A. The freights follow. Probably sixty-five per cent. of our coal.

Q. Go through the same detail in respect to the total purchased coal in the years mentioned and show the general results. A. For the eight months ending June 30th, 1901, the total anthracite coal purchased was 684,138 tons 16 hundred-weight, on which a profit was made of nine and nine-tenths cents per ton, equalling $67,442.73. During that period the loss on Broken coal was seven and three-tenths cents per ton, amounting to $2,118.26. For the year ending June 30th, 1902, the total amount of coal purchased was 1,034,290 tons and 2 hundred-weight, on which there was a profit per ton of twelve and one-tenth cents, making a total of $125,328.27. The loss on Broken coal was nine and three-tenths cents per ton, or a total of $3,461.69. For the year ending June 30th, 1903, the total amount of coal purchased was 1,008,-252 tons and 8 hundred-weight, on which there was a profit of twenty-four cents per ton, amounting to $241,-685.37. A profit being made on all sizes that year. For the year ending June 30th, 1904, the total amount of coal purchased was 1,388,534 tons and 17 hundred-weight, on which a profit of fifteen and one-tenth cents per ton was made, amounting to $210.167.74, a profit being made

on all sizes. For the year ending June 30th, 1905, the total amount of coal purchased was 1,184,349 tons and 11 hundred-weight, on which a profit of thirteen cents per ton was made, amounting to $154,516.84. The loss on Broken was four-tenths of a cent per ton, equalling $285.59. For the year ending June 30th, 1906, there were purchased 1,024,050 tons and 17 hundred-weight, on which there was an average profit of twelve and three-tenths cents per ton made, amounting to $126,532.91. The loss on Broken was two and six-tenths cents per ton, amounting to $1,378.52, and on Buckwheat three and one-tenth cents per ton, amounting to $6,321.43. For the year ending June 30th, 1907, the total amount of coal purchased was 1,107,848 tons and 7 hundred-weight, on which a profit was made of eleven and nine-tenths cents per ton, making $132,163.29. There was a profit on all sizes. For the year ending June 30th, 1908, the total purchases were 1,083,681 tons and 19 hundred-weight, on which a profit was made of thirteen and seven-tenths cents per ton, making a total of $148,409.45. Loss on Broken was six-tenths of a cent per ton, equalling $317.55.

Q. These statements which you have just given in evidence cover all anthracite purchased coal wherever shipped? A. They cover the total anthracite coal purchased by the company during those periods; yes, sir; no matter where it was shipped, or to what point.

Q. To New York tide? A. Yes, sir.

Cross examination.

By Mr. McReynolds:

Q. You were asked about the averages which were furnished at the end of each month to the Bureau of Anthracite Coal Statistics, and you put into the record a sample of the sort of reports which you make on that subject. How are those averages made up? A. From the average monthly price received for each kind and size of coal.

Q. How is that average arrived at? A. The total tons divided into the total money.

Q. You take your total amounts charged against customers and divide them by the total tons? A. Yes, sir. Each size being kept separate.

Q. The coal is weighed at the assembling points at the scales and way-billed from these points to New York harbor; is that right? A. Yes, sir.

Q. And are these the weights that you use in determining these averages? A. No. sir. The coal is re-weighed again at our shipping point in New York harbor by our agent there.

Q. And loaded into barges? A. And loaded into barges or in boats, as the case may be.

Q. Are the weights which are used in determining these averages the weights of the coal which actually go into those barges? A. Yes. The actual weight of the coal that goes into the barges.

Q. A car of coal starts from the weighing scales in the mining region, containing, let us say, a hundred tons of coal, Egg size, it goes to the docks at Port Reading, and there, as I understand it, it is re-weighed? A. Yes, sir.

Q. There is not infrequently a loss in weight between those scales and the docks, is there? A. A loss between the scale and the dock?

Q. Yes. A. Very little on the largest sizes of coal.

Q. On the smaller sizes? A. On the smaller sizes there is occasionally some small loss.

Q. Who stands that loss? A. The company stands that loss.

Q. What company? A. The Philadelphia and Reading Coal and Iron Company.

Q. Is that loss figured into these figures you have given us showing the result of the company's operations? A. These losses are so infinitesimally small ——

Q. That does not answer the question. Are they figured into these figures which you have been putting into the record? A. Yes. Those losses are included.

Q. How do they get in? A. As we only bill the coal out to the consignee on making up our f. o. b. prices, we only take the actual coal that we sell.

Q. In making up these prices have you charged on one side the mine weights upon which you settle with the operators, and only credited on the other side the f. o. b. weights? A. No, sir. In making up these prices furnished Ruley we have only charged the coal actually sold.

Q. In making up the results of the company's operations, I want to see how you proceeded. Have you proceeded by taking a ton of coal and estimating how much is made on it, and then taking the number of tons and multiplying it, or have you taken the actual figures received by the company? A. I have taken the actual figures received by the company compiled from our sales.

Q. Actual figures paid to the operator on one hand and actual figures received by you on the other? A. Yes.

Q. Have you in those figures which you have given showing the company's operations figured anything for bad debts? A. Our bad debts during the last ten years have amounted to nothing comparatively—a fraction of a percentage. I have not figured into that the bad debts; no, sir.

Q. Have you figured into that anything for the cost of collecting? A. The cost of collecting is in our own general office. I have figured nothing for collecting; no, sir.

Q. Have you figured into that anything for the cost of selling at all? A. No, sir.

Q. What is the usual price paid for the selling of coal at tide in New York? A. That is a question I think that I would not be familiar with.

Q. It is two per cent., is it not? A. I think it is based on the tons, so much a ton.

Q. About ten cents a ton? A. About ten cents a ton.

Q. And that ten cents that is ordinarily paid you have not figured in here at all? A. No, sir; I omitted it.

Q. Neither have you, as I understood you to say, figured anything in here for the loss, about one per cent., occasioned by screening the coal? A. In the New York harbor, I furnished a statement showing the total. Not in the statement that I furnished, but I furnished an auxiliary statement showing the loss of five cents a ton.

Q. I am trying to discuss the figures you have made undertaking to show a profit on this coal, and to see what you have omitted? A. I have not put any of them in; no, sir.

Q. If you put in ten cents, the ordinary price for selling, and one per cent., the ordinary loss on this coal, you would not figure out very much profit, would you? A. Our total profit for the year for the period from November 1st, 1900, to June 30th, 1908, is fourteen and two-tenths cents.

Q. If you figured out fifteen cents for less and for selling, how much would you have left? A. We only made fourteen and two-tenths cents.

Q. Have you figured out anything in this statement for the use of the capital involved? A. None whatever; no, sir.

Q. It takes considerable capital to handle this amount of coal, does it not? A. Considerable.

Q. You have put in nothing whatsoever for that? A. Nothing for the use of the capital.

Q. You have put in nothing for the risk of the business, have you? A. The risk of bad debts?

Q. Any risk that is incident to the business? A. Nothing for risks; no, sir.

Q. Supposing coal should decline fifty cents a ton, what would be the result to your company of these contracts you are operating under? A. It would be a loss.

Q. Every ton of coal that you sent to tide would be at a loss, would it not? A. Under the conditions you mention; yes, sir.

Q. These contracts provide that these miners shall sell you this coal down to a price about a dollar a ton less than the price now prevailing, and upon which these figures have been made, do they not? A. With the people we purchase coal from?

Q. This contract that you have with one of the operators provides, "It is also understood and agreed, anything herein contained to the contrary notwithstanding, that if at any time or times the average f. o. b. price at

tide for sizes larger than Pea coal should be less than three dollars and fifty cents per ton, then the seller may at its option temporarily suspend mining and cease all deliveries hereunder until the average price shall reach three dollars and fifty cents per ton.?" A. Yes, sir.

Q. "Provided, however, that two weeks notice of intention to stop delivery shall in each case be given by the seller to the buyer and if any question arises as to the price being less than three dollars and fifty cents, it shall be submitted to the Permanent Arbitration Board.?" A. Yes, sir.

Q. Suppose the average price at tidewater of coal larger than Pea should decline to three dollars and fifty cents, what would be the result, under these contracts, to your company for the coal sold at tide?

JUDGE MOOT:—On behalf of the companies I represent, I object to this as incompetent, improper, not going into any subject touched by any evidence of any of the defendants, or any subject put in issue by the petition or the answer, and not proper cross examination. Further, that it is pure speculation, years after these contracts were made, as to what might be the result hereafter, and is in no sense competent either under the issues or upon the facts, for the purpose of determining whether or not these contracts when made were honest contracts of purchase and sale of coal within the State of Pennsylvania, or whether, in fact, they were, as the Government alleges, mere devices to cover some rebating or other transaction contrary to law.

A. I do not know.

Q. Make the figures and tell us. A. In what way.

Q. Put down three dollars and fifty cents. What is sixty-five per cent. of that?

JUDGE MOOT:—I make the same objections to this question that I made to the previous one.

A. Two dollars and twenty-seven and a half cents.

By MR. MCREYNOLDS:

Q. So you pay the operator how much? A. Two dollars and twenty-seven cents and a half.

Q. The freight is how much? A. Freight, running the train both ways is one dollar and fifty-five cents.

Q. Add that to what you pay the operator? A. That would leave us a dollar and twenty-three cents per ton for the freight.

Q. You would have to pay out one dollar and fifty-five cents for freight? A. Yes, sir.

Q. So the result of it would be you would lose thirty-two cents on every ton of coal you bought? A. On that theory; yes, sir.

Q. Are there any independent operators located along the lines of the Philadelphia and Reading Railway Company who do not sell their coals to the Philadelphia and Reading Coal and Iron Company? A. I would not be able to answer that question. I know nothing of the operators along the line of the Railroad Company.

Q. What is the freight rate from the mines to Philadelphia? A. One dollar and seventy cents on the prepared sizes.

Q. What is it to New York? A. One dollar and fifty-five cents.

Q. Which is the farthest from the mines, Philadelphia or New York? A. New York.

Q. So your road hauls coal to New York and delivers it over these expensive docks at a less price than it hauls it a shorter distance to Philadelphia? A. Let me state that the rates to New York are one dollar and ninety-five cents. The rates to Jersey City are one dollar and fifty-five cents f. o. b. Jersey City; not New York.

Q. That forty cents is an imaginary thing allowed for bargery? A. On our circular, which is issued by our selling department.

Q. Your rates at Jersey City are one dollar and fifty-five cents? A. Yes, sir.

Re-direct examination.

By JUDGE CAMPBELL:

Q. The gentleman referred to the question whether in estimating these profits from tide coal, you included or de-

ducted wastage. I understood from the statements you originally put in, that they did not include any deduction from wastage? A. Yes, sir.

Q. But that later on in your testimony in chief you did include it specifically? A. Yes, sir.

Q. And showed the balance? A. And furnished the statement here; yes, sir.

Q. Referring to the question the gentleman asked you, suppose the price of prepared coal at New York tide should drop fifty cents a ton. Would not the result be that sixty-five per cent of that fifty cents would not be paid to the seller? A. Yes, sir.

Q. You would pay him that much less? A. We would pay him sixty-five per cent. on fifty cents less; yes, sir.

AGNEW THOMPSON DICE, called on behalf of the Philadelphia and Reading Railway Company, having been duly sworn, was examined as follows:—

By JUDGE CAMPBELL:

Q. You are now the general superintendent of the Philadelphia and Reading Railway Company? A. I am.

Q. And also of various affiliated companies which, while maintaining a separate and independent organization from the Philadelphia and Reading Railway Company, are affiliated on account of a major interest of the Reading Company in their share capital, and form part of the so-called Reading System? A. I am general superintendent of the system of the Philadelphia and Reading Railway and affiliated lines.

Q. How long have you been general superintendent? A. Since the 1st of May, 1903.

Q. I would thank you to state to the gentlemen your previous experience in railways in a brief, general way. It is not necessary to go down into great detail. A. I began work with the Pennsylvania Railroad in July, 1881, on an engineering corps and served in various capacities with that company until 1892. I was then a supervisor

on the Pennsylvania Railroad. I left there the 1st of January, 1892, and went with the New York Central, as superintendent of signals, and installed the interlocking and block system on the New York Central. I left there April 1st, 1894, and was appointed superintendent of the Atlantic City Railroad, which is one of the Reading lines. On the 1st of February, 1897, I was appointed superintendent of the Shamokin Division of the Philadelphia and Reading Railway and on May 1st, 1903, I was appointed general superintendent, which position I now hold.

Q. You are entirely familiar with the whole system of the Railway Company and its affiliated lines, their geographical situation and so on, I suppose? A. I am.

Q. State whether or not that map before you is a correct map of the entire system, showing its northwestern and southeastern terminals, Philadelphia terminals, Wilmington terminals, and connections with the Jersey Central and other railroads, the Jersey Central particularly, the Bound Brook, Port Reading Junction, Port Reading terminus, and so forth. A. The map is practically correct. It was prepared by our chief engineer, Mr. William Hunter, who furnished me with this copy.

Q. It is the latest official map of the system? A. It is the official map and is practically correct.

Judge Campbell offered the map in evidence, the map being described as "Map of the Philadelphia and Reading Railway and Affiliated Lines, 1908." Marked "Reading Exhibit No. 1, C. H. Guilbert, Examiner." It is understood by counsel that this map is not to be printed.

Judge Campbell also offered in evidence a photographic reproduction on a small scale of Exhibit No. 1, and requested that copies be bound with the record. Photographic reproductions marked "Reading Exhibit No. 2, C. H. Guilbert, Examiner."

Q. You have stated that you were for some years local superintendent of the so-called Shamokin Division of the Philadelphia and Reading Railway Company. I would like you to describe orally what is included in the so-called

Shamokin Division, giving it a general description so as to differentiate it from other parts of the road in the coal region. A. By reference to the map?

Q. By giving some oral definition of it, but keeping your eye on the map so as to guide you. A. The limits of the Shamokin Division are Tamaqua on the south, where it joins with the Reading Division of the Philadelphia and Reading Railway and runs north and west through the Mahanoy Valley, through the Locust Summit region to Shamokin, thence north to Williamsport and Newberry Junction, where it connects with the New York Central Railroad. Then we have, from a point seven miles north of Tamaqua, an alternate line known as the Catawissa Line, which diverges there from the Shamokin Division, running north and east, or more nearly north, through the Catawissa Valley and again joining the Shamokin Division at West Milton. The two lines are each about sixty-five miles in length. Over the Catawissa line we handle our through bituminous coal and through trade and merchandise traffic going to and coming from North and West.

Q. Tamaqua is on the leased line called the Little Schuylkill Railroad Coal and Navigation Company? A. I am not certain of the full extent of the original title. It is called the Little Schuylkill Railroad now.

Q. It extends down through Tamaqua to Port Clinton, where it joins the main line from Pottsville? A. Yes, sir.

Q. There are no coal operations whatsoever on the line of the Catawissa Railroad proper? A. No.

Q. North of the Catawissa Mountain there are no coal operations tributary to the Philadelphia and Reading Railway system? A. No.

Q. I want to call your attention, before you leave that subject to a little independent road to Coleraine Colliery; what is the name of that? A. The Beaver Meadow Trescow and Northern I believe.

Q. That belongs to the owner of the Coleraine colliery? A. Yes, sir.

Q. Some estate is the owner of that property; do you recall the name of it? A. Van Wickel.

Q. About how many miles is the Coleraine Colliery from this connection with your branch up in there? A. About a third of a mile.

Q. That is the only colliery in that region that ships its coal over the lines of the Philadelphia and Reading Railway system? A. Yes, the only one.

Q. Let me call your attention to the fact that, from some collieries in the so-called Audenried region or Lehigh region, the Central Railroad Company, with its own power under trackage right and the payment of so-called rental, transports, with its own power, the coal produced from their collieries there, from a connection with their tracks of a branch of the Catawissa system, down to Tamanend, where they continue on over their own system? A. That is correct.

Q. Those operations are the sole operations producing anthracite coal connected with the tracks of your Catawissa system? A. They are.

Q. So far as the anthracite coal regions are concerned, I take it from what you have said that this Shamokin Division includes everything north of the summit of Broad Mountain? A. It does.

Q. Substantially everything north of Broad Mountain? A. Yes.

Q. The other coal regions south of Broad Mountain, in the Minersville region, Lykens Valley and so forth, they are included in the other division? A. They are all in the Reading Division.

Q. They are all included in what is called the Reading Division? A. Yes.

Q. You are equally familiar, are you not, with all the geographical features of the southern part of this coal field, as well as of the northern, from your experience since you became general superintendent? A. Yes, I am.

Q. I wish you would begin at such a place as you may see fit and describe, in a general way and in some detail, the mode and method of carrying empty cars to the breakers, carrying loaded cars from the breakers to the various gathering points, describing them, throughout

the whole system, following your map so you can keep continuity of thought about it. A. The map shows in a comprehensive way the entire coal region of the Philadelphia and Reading Railway, and it is corrected up to date, showing both the active and abandoned collieries. At St. Clair the coal is weighed and forwarded; that is all coal from the Shamokin Division. The empty cars are assembled there and distributed throughout the Shamokin region. From St. Clair to Mahanoy Plane, a distance of seven miles, we have a grade of one hundred and eighty-five feet to the mile. Our largest engines haul fourteen to sixteen empty cars up that grade. The cars are there lowered over Mahanoy Plane and again picked up with engines and distributed throughout the coal region.

Q. I wish you would describe that plane, while you are passing it, the method of its operation. A. The plane is a double track inclined plane about fourteen hundred feet long and having a vertical lift of three hundred and sixty-three feet. The empty cars are lowered on the plane and the loaded cars are hoisted. The maximum load loaded on the plane is one hundred and ten tons.

Q. How much does that represent in cars? A. That represents in cars not to exceed three of our sixty thousand pounds capacity cars; two of our fifty-ton cars. There are, passing over that plane and over that one hundred and eighty-five foot grade between St. Clair and Mahanoy Plane, each working day, about one thousand empty cars and one thousand loaded cars. We have a distributing and assembling yard at the foot of the plane, from which the empty cars are distributed to the various collieries on the Shamokin Division. We have from Mahanoy Plane to Gordon a descending grade of fifty-two and eight-tenths feet to the mile. Empty cars are taken down there in trains of from fifty to seventy-five cars, as it may suit the trade, and are set off at Gordon; that is a distance of eight miles. From Gordon to Locust Summit, seven miles, we have an ascending grade of one hundred and thirty-two feet to the mile. An engine will

take about fifteen empty cars to Locust Summit. From Locust Summit into Shamokin we have a descending grade varying somewhat, but generally seventy-five feet to the mile; that is on a distance of twelve miles. At Shamokin we again have a small distributing and assembling yard, from which the collieries in the immediate vicinity of Shamokin are served. Leaving Shamokin we go to North Franklin Colliery, which is the most northerly and westerly colliery of the Philadelphia and Reading Railway and is about forty miles from the St. Clair yard. There were at North Franklin originally two collieries which were abandoned about the year 1898, and one colliery opened in place of the two. In handling the product from North Franklin Colliery, we have Herndon Branch Junction, which is two miles beyond Shamokin and which is six and six-tenths miles from Treverton, where North Franklin Colliery is located. In operation, an engine will take from sixteen to seventeen cars from Shamokin to Kulp's Summit. They there set off those cars, go back to Shamokin for another train of sixteen or seventeen cars, taking them up to Kulp's Summit, and the same engine that delivers the cars to this North Franklin colliery, hauls the loads from North Franklin colliery to Kulp's Summit. It will haul up there about fourteen or fifteen loaded cars, and will take the same number of cars into Shamokin yard. North Franklin Colliery produces about sixty loaded cars a day, so that it takes from four to five trips of an engine between Shamokin and North Franklin Colliery to handle the output, or requires about sixteen or eighteen hours each day for one engine. Of course, there may be a different crew; that is expressed simply as engine hours. From Shamokin an engine will haul to Locust Summit, which is a seventy-five foot ascending grade, seven or eight loaded cars. The cars are dropped down from Locust Summit to Gordon in trains of about thirty-five cars each. From Gordon they are hauled to Mahanoy Plane in trains of about forty-five cars each, with three engines, three of our largest engines on the train. At Mahanoy Plane they

are put on the plane and hoisted, not to exceed three cars at a time, and are hauled down the Frackville grade to St. Clair in trains not to exceed thirty-five cars to a train. We have to limit the length of our train on that down grade on account of the danger in operating a very steep grade.

Q. I wish you would go back and mention all of the several collieries that are tributary to that Shamokin yard, so-called, and the quantity of coal from the whole of that region that is handled in the way you described with respect to the output of the Franklin colliery. A. The Bear Valley, Burnside and Henry Clay collieries are supplied with cars and are handled, from the transportation standpoint, by the railroad forces at Shamokin. Bear Valley and Burnside collieries particularly are on very heavy grades.

Q. Are those on the main line or on coal branches? A. They are on coal branches by themselves.

Q. I wish you would mention the coal branches leading to these various collieries as you are passing them. A. Henry Clay has an output of about 1200 tons, about sixty cars per day; Bear Valley about fifty cars per day; and Burnside about seventy cars per day. The Bear Valley, Burnside and Henry Clay collieries require three engines about ten hours each to serve them, each working day.

Q. For each colliery or the three? A. For each colliery.

Q. That means nine engines for the three? A. Oh, no; three engines about ten hours each.

Q. To serve these three collieries to and from Shamokin yard? A. To serve these three collieries to and from Shamokin yard.

Q. All this product, of course, distributed from the Shamokin yard, takes the same course as you described with respect to handling the output from the Franklin colliery? A. Precisely. Corbin, Excelsior, Enterprise, Locust Gap, or rather Locust Spring, Alaska, Reliance and Natalie collieries are handled from our yard at Locust Summit.

Q. In a similar way? A. In a precisely similar way.

Q. That is to say, the coal is collected from the collieries to the yard and assembled in the trains there? A. And then hauled along to the St. Clair yards over the same route I described for the Shamokin coal.

Q. How is it about the coal branches to those several collieries you mentioned? A. The branches at Excelsior and Corbin collieries are on very heavy grades; Enterprise Branch is practically a level branch; Alaska colliery is along the main line, on, however, a seventy-five foot grade on the main line. The Reliance colliery is on a branch with a light grade. Natalie colliery is on a branch about four miles long, with a grade of about sixty feet to the mile, with a switchback on it.

Q. Describe a switchback. A. The Natalie colliery is just on the top of the mountain and, in order to reach it from Alaska, you cannot get over there and get up by a continuous line, and we run along the side of the mountain up to a certain point, then stop and branch off this line ——

By JUDGE MOOT:

Q. You zigzag up the mountain? A. Yes.

By JUDGE CAMPBELL:

Q. Now go on to the next region. A. Potts colliery, the next one east from Locust Summit, is served from Mahanoy Plane, over another branch, which we call the Ashland Upper Route. That is a single track line with a grade running up to one hundred and eighty-five feet to the mile. We can handle with the colliery engine about twelve empty cars up that grade and haul about an equal number of loaded between the colliery and the foot of Mahanoy Plane. Big Mine Run, or rather Bass colliery is another operation on the Ashland Upper Route which is served against that heavy grade. The production is also handled from Mahanoy Plane. All of the collieries in the Shenandoah region, Keely Run, Knickerbocker, Indian Ridge, Blank Ridge, Shenandoah City, Cambridge, Maple Hill, Suffolk, St. Nicholas, Kohinoor, West Shenandoah,

Hammond, are handled, and Bear Ridge is also handled, from Mahanoy Plane.

Q. I wish you would describe that Shenandoah Branch. A. The Shenandoah Branch is a single track branch about seven miles long, on which are handled about two hundred and fifty cars of coal a day. From Mahanoy Plane to Preston Junction, two miles we have a descending grade going to the Shenandoah Branch of about one foot to the mile. From Preston Junction is an ascending grade to the various collieries, limiting the number of empty cars that an engine can haul from Mahanoy Plane to any of the collieries to about fifteen and, with the return of the loaded, the grade from Preston Junction to Mahanoy Plane limits the loads handled per engine to about twelve or fourteen loads. We have working on that branch about five engines, handling the product of these collieries; we have five engines, working about twelve hours per day each. There are also collieries at Stoddard, Draper, Gilberton, Boston Run, Tunnel Ridge and North Mahanoy and Mahanoy City collieries. Of those collieries Draper and Gilberton are on branches with very heavy grades. The other collieries named in that group are on comparatively light grades. In giving the collieries on the Shenandoah Branch I inadvertently included some of the collieries on the Ellengowen, but did not include them in the time necessary to serve them with engines. The Ellengowen Branch is a branch two miles in length, leading off of the main track of the Shamokin Division at St. Nicholas. On the Ellengowen Branch are Knickerbocker, Ellengowen, Maple Hill, Suffolk and St. Nicholas collieries, producing about two hundred cars of coal a day. The grade going up the branch from St. Nicholas is an ascending grade of about sixty feet to the mile. An engine will haul fourteen or fifteen empty cars up the branch and will return with about thirty loaded cars. The Ellengowen Branch requires four crews about ten hours per day to handle the production. All this Shamokin Division coal, as I have stated before, is handled by Mahanoy Plane,

except in case of any interruption to the operation of Mahanoy Plane, which occurs occasionally, when part of the coal is handled south via Tamaqua and the remainder is handled over what is termed the Bear Run Junction route, which is a connection between the Shamokin Division and the Reading Division, running up the mountain side on a grade of one hundred and thirty-two feet to the mile. We have altogether on the Shamokin Division forty-seven engines constantly engaged in the work of distributing empty cars and gathering anthracite coal and putting it at the foot of Mahanoy Plane, and forty-seven engines are not able to do all of the work with a single crew, so that we have forty-seven engines and fifty-seven crews constantly in that work, taking care of the Shamokin Division coal between the collieries and the foot of Mahanoy Plane.

Q. Describe a little more fully the movement over Mahanoy Plane and the Plane itself. A. Mahanoy Plane is a double track inclined plane. There is an engine at the head of the Mahanoy Plane of twenty-five hundred horse-power, with two forty-five by sixty inch cylinders, and a nest of five Sterling boilers furnishing steam for the engine. There are two twenty-foot drums or shieves on that engine, around which wire cable is wound and rewound, and to either end of the wire cable is attached a safety truck. The safety truck in going down the plane at the foot of the plane drops into a pit provided for that purpose, so that empty cars can run out over the safety truck, and in putting the loaded cars on the plane, the loaded cars run in over the safety truck and then, when the engine is started, the safety truck rises up out of this hole and comes up against the cars and pulls them up the plane.

Q. Before we get to the service at the scales, I would thank you to take up the various fields in the lower region of your Reading Division, anthracite coal that is, going through the same method of description, locating the yards, the method of assembling, and so forth. A. At Cressona, which is on the Mine Hill and Schuylkill Haven Railroad and is about six miles south of St. Clair yard, we have

another yard and a weigh scale where the coal that is mined south of Broad Mountain is handled. The coal from Kaska William, Silver Creek and Eagle Hill collieries is handled through the St. Clair yards. At Cressona we handle all of the coal mined south of Broad Mountain, except those three collieries. Brookside colliery is the most westwardly colliery in the Reading Division and south of Broad Mountain about twenty-five miles from Cressona scale. One engine will handle thirty-eight cars from Cressona scale to Tremont about fifteen miles. From Tremont to Keffers, about five miles, one engine will handle eighteen cars. From Keffers to Brookside, one engine will handle about thirty empty cars and return with about thirty loaded. Brookside produces about fifty-five loaded cars per day, requiring the services of one engine and crew for about fourteen hours. Lincoln colliery on the Lorberry branch, which is a branch with a switchback on it, a grade of about sixty feet to the mile, is served with one engine and an engine will haul over that branch eighteen empty cars. On account of the grades and the switchback, it cannot haul more than eighteen loads out from the colliery. That colliery, with a capacity of sixty-five cars per day, requires the use of one engine and crew for about sixteen hours each day. We have Good Spring colliery, Donaldson, Phoenix Park No. 3, Otto, Buck Run, Glendower, Butcher Creek Washery, Ellsworth, Oak Hill, Wadesville and Pine Knot collieries, all of which are handled from Cressona. The collieries south of the mountain require twenty-five engines and twenty-five crews, working about twelve hours each to handle their product. That includes all collieries on the Reading Division.

Q. Now you have described the *modus operandi* of collecting the coal from the collieries to the scales and the carrying of the empty cars from the scales to the collieries. Be good enough now to describe, as briefly as you may, to be accurate, the *modus operandi* of handling and assorting the coal at the scales, assembling it into trains for consignment and in general the operation of the yards at the scales. A. At St. Clair we have a yard that will accommodate

about two thousand cars, which is about one day's business. We have under consideration at this time the question of spending a million dollars there for improvements and additions to the yard, and at the same time spending $100,000 on the Mahanoy Plane for improvements. As I explained, all of the Shamokin Division coal, the coal from Kaska William, Silver Creek and Eagle Hill, is assembled at St. Clair, weighed at that point and the shipping directions are given there. The coal is classified on the various tracks south of the scale as to destination. We have about twenty tracks now on which we can classify, and our proposed plan is to have thirty-two tracks. On account of the great variety of sizes and kinds of coal, the question of classification is a very tedious one. At certain times the market will take certain sizes of coal and other sizes it will not take. So we constaintly have at out scales what is known to the men as surplus coal. It is coal which, when it reaches the scale, there are no orders for and it is there held in surplus until an order is received either to forward the coal on a direct consignment, or to forward it to one of our various storage yards for dumping and putting in storage. When a consignment is given, it of course requires additional switching in order to get the coal out of the classification yard where it has been switched, and the classification yard is on a very heavy grade, so that the handling of that surplus coal is a matter of considerable expense. The coal that goes on direct consignment is classified and is picked up at St. Clair yard by an engine and hauled to Palo Alto, a distance of three miles, and there taken by road train to destination. The destination may be Harrisburg, Port Richmond, Port Reading, or to local destinations. The trains consist of about sixty-five cars each, or three thousand tons per train and, of course, in the distribution of the anthracite coal there is a tremendous amount of stopping and setting off of loaded cars and returning cars, stopping and picking up of empty cars and taking them to the coal regions.

Q. Before you proceed further in regard to the ultimate destination of this coal, I would like you to state the comparative cost of gathering the coal from the collieries, sup-

plying the empties, carrying it to the scales, handling it at the scales, with reference to the cost of the haulage of the loaded train from the scales to the destination. A. Each colliery, of course, produces a great number of sizes of coal. The coal coming out of the mine and into the breaker is broken up, separated into the various sizes being prepared for market. There are many sizes, and the different sizes largely go to different places, so that we have at all our collieries a number of both empty and loaded car tracks, on which the cars are switched so that they may be available for loading as the necessity of the breaker requires; they get their Chestnut coal or their Pea coal chutes, as they term them, in the breaker full, and they must have a car to load that particular coal on. It may be a Reading car or it may be a car for loading to Chicago, or some other point, so that we must constantly have at the collieries a number of different cars, coal cars and box cars, and be prepared to furnish them as they are needed at the collieries. After the cars are run into the breaker and loaded, they are dropped below the breaker and are there switched into trains to be hauled to the scale. The North Franklin colliery, for example, is forty miles from St. Clair scale. Brookside colliery is twenty-five miles from Cressona scale and with this tremendous number of small sidings and branches, and coal operations, the question of supplying the collieries with empty cars and distributing them and assembling the loaded cars is, of course, a complicated and expensive arrangement. It costs us pretty nearly twice as much to gather our coal at the scales, ready to forward to market, as it does to haul it from the scales to market.

Q. Before leaving this feature, I wish you would describe the character of the cars that are required by this anthracite coal service, in respect of capacity, as compared with those that are required in the bituminous service, for instance. A. The important difference between anthracite and bituminous coal is that bituminous coal is usually sold run of mine, that is, all the output is of the same grade and can be loaded, weighed and consigned without furnishing a different kind of car. With the an-

thracite coal, with the different sizes and the fact that one day there is no market for coal and another day there may be, we have to have on hand all the time a variety of cars. One colliery, for example, in making a call for cars at night will call for, say ten P. & R. cars, five west of Buffalo box cars, three cars for loading to the South and as many more for loading to New England points. The Railway Company to meet that must always have on hand foreign cars, on which they, of course, pay a *per diem* and often, after cars are held for a few days, we find that orders have not materialized and the cars are sent home empty. That is the exception, of course. The breakers, many of them are old and were built when there was no thought of a car of one hundred thousand pounds capacity, so that we find ourselves to-day with a large proportion of our equipment being the old, low side car. The coal companies cannot, in a wholesale manner, rebuild their breakers and we have to provide cars that can be loaded at the breakers. We have now eleven thousand five hundred and ninety-three twenty-five ton cars, that is, fifty thousand pound capacity cars, which were built about sixteen to eighteen years ago. We figured a little while ago on not spending much money on the repairs of those cars, but, as they got to a certain stage, to destroy them and replace them with other cars. The problem was what other cars we could use. We could not use one hundred thousand capacity cars extensively at all, because only about twenty-five per cent. of the breakers can load the one hundred thousand ton cars. Again, even when they can load them, the farmer and the grocer and the man living out in the country wants twenty or twenty-five or thirty tons of coal and does not want fifty, so we cannot load the one hundred thousand pound cars to the small consumer of coal. In replacing those eleven thousand five hundred and ninety-three cars with an equivalent carrying capacity, we got the following: It would require ninety-six hundred and sixty-one, thirty-ton cars, at $900 each, to provide an equivalent carrying capacity, and they would cost $8,694,900. To replace

them with the forty-ton car would require seventy-two hundred and forty-six forty-ton cars, which would cost $950 each, or a total of $6,883,700. It would require fifty-seven hundred and ninety-seven fifty-ton cars, at $1055 each, a total of $6,086,050. That shows that to replace our present old equipment of twenty-five ton cars with fifty-ton cars would cost us $2,608,850 less than to replace them with thirty-ton cars. We would not think of building a thirty-ton car if it was not for the anthracite coal business. The bituminous man and the blast furnace man with the iron ore will not take a thirty-ton car. They want a one hundred thousand pound car, because it will carry a larger load and because it is what we call self-cleaning, or self-unloading. You open the doors in the bottom of the car and the load runs out. We therefore have fifty-ton cars and the thirty-ton cars and will probably have to perpetuate them on account of the necessities of the anthracite trade. That leads to another condition which is everywhere recognized as a most unfortunate one, and that is in the operation of the railroad we have trains mixed up with twenty-five, thirty and fifty-ton cars, both loaded and empty, which makes a rather dangerous condition. The ideal condition is, of course, all cars of the same capacity.

Q. And standard of strength? A. And standard of strength. Every other industry that we know of wants the high capacity car, and we cannot put it in the anthracite trade extensively. Another thing is, on a twenty-five-ton car we have a dead weight of six-tenths of a pound for each pound of lading. On a thirty-ton car we have a dead weight of five-tenths of a pound for each pound of lading. On a forty-ton car we have a dead weight of forty-five-hundredths of a pound for each pound of lading. On a fifty-ton car we have a dead weight of forty-two-hundredths of a pound for each pound of lading. So there is another condition that the perpetuation of the low capacity car forces on us, that we must continue hauling a greater amount of dead weight for a paying load than we ought to or than we do in any other branch

of the business. Again, when a car is put in to load bituminous coal or ore, the car is put in without much preparation, just as it is found. A car that is put in for anthracite loading, must be swept and cleaned, the same as you would for high class merchandise. If a car of anthracite coal is wrecked (a number of them are wrecked) the coal is scattered over the ground, and it must be picked up and paid for by the Railroad Company. It cannot go to market. The Railroad Company must make what use of it it can. If a car of bituminous coal is wrecked, they pick it up usually and send it to market, simply making a deduction for the actual loss in weight, or, if not, we can use it on our engines and get as good results from it as coal that we buy and that has not been wrecked. There is also, of course, a great deal of coal stolen, anthracite coal stolen in transit, and practically no bituminous coal. We have a large force of special officers tracing the thefts of coal right along, and we arrest them for stealing the coal and they get before a magistrate or before a court and say that they were cold and needed the coal, and they are let go. We have had that actually happen time and again. Again, anthracite coal has a tremendous loss in leakage. Take the finer sizes of coal, and nobody has ever found the way yet to get a car that will hold the small sizes of anthracite coal in transit. We are paying tremendous sums every year for coal loss in that way and, in addition to that, we have on our main line track, between St. Clair and Cressona scales and Reading particularly, and to some extent south of Reading, but particularly north of Reading—we have to go over that entire southbound track once in three or four years and take out the ballast, screen it and take out the coal dirt that has gradually leaked out of the cars on to the track. We have to clean it over every three or four years. The fine coal gets in the ballast and packs and simply destroys the drainage, and we have to go over it every three or four years for that reason. There is one other peculiarity about the coal trade, and that is, take our Shamokin Division for example; the coals

in the vicinity of Mahanoy City, the southern part of the Shamokin division, are what is known as Hard White Ash coals. The Shamokin coals are a Red Ash coal and are softer and freer burning. The softer coals are usually in demand south, not only in the southern part of the State, but particularly south of the Pennsylvania State line; while the harder coals are in demand in the north and west, and we have constantly on the Shamokin Division the peculiar condition of hauling the southern coals north and the northern coal south.

Q. And both ways over these summits? A. And both ways over these summits.

Q. Passing each other? A. Passing each other and running in opposite directions. The people want the coal and they will have it, of course; we must supply it.

Q. The market is very fastidious about the sort of coal it uses, I take it? A. It is indeed.

Q. You have brought your coal form the scales destined to New York tide. I want you to speak of that particularly, because it is rather peculiar to this litigation. Where is the point of divergence of the tracks which lead to Port Reading from the old main line? A. That is at Bridgeport. That is seventy-five miles south of the St. Clair scale.

Q. From that point to Port Reading how does the coal move usually A. The coal moves over our Norristown Connecting Railroad, down over the Philadelphia, Germantown and Norristown to Plymouth Branch Junction and thence over the Plymouth Branch to Oreland. The Plymouth Branch is a single track line with a maximum grade of about sixty feet to the mile; about eight miles long. We haul a train over the Plymouth Branch with about twenty-six or twenty-eight loads, with two engines.

Q. You mean two engines on a train or two engines in service? A. We put a pushing engine on and push them over the branch.

Q. That is two engines to the train? A. That is two engines to the train. Then they go from Oreland to Jenkintown over our Bethlehem Branch and from Jenkintown to Port Reading Junction over the New York

Branch, and, of course, from Port Reading Junction to Port Reading over the Port Reading Railroad.

Q. What is the maximum train load that you can handle from Bridgeport to Port Reading yard? A. Two thousand tons.

Q. How many cars? A. That is about twenty-eight cars.

Q. As compared with the number of cars you haul from the scales to Bridgeport or Philadelphia, Port Richmond, what does that mean? A. We haul three thousand tons from the scales to Bridegport and two thousand tons from Bridgeport.

Q. Only two-thirds the quantity of the train load going to Port Reading? A. Two-thirds.

Q. This wearing out and destruction of the cars in the service which you have described must be reimbursed, as a matter of course, from the earnings for the carriage of that coal? A. That is the only place to get it from.

Q. You may describe the service of the Port Reading Railroad Company at its terminal, after your service of transportation, delivering the coal into your yards, is ended, so as to get the coal over the piers into the vessels, the service of shifting in the yard to get the coal, as it is needed for a particular boat, up over the trestle or wharf on to the wharf, discharged, weighed and so forth. A. Roughly, we run over the Port Reading tracks with our through trains and from Port Reading Junction to Port Reading, which is seventeen miles, and at Port Reading make delivery of the loads to the Port Reading Railroad in their yard, and the Port Reading Railroad employs the engines and crews that do the local handling, switching cars on to the piers, unloading them, returning the empties to the yard.

Q. Do you know what allowance is made to the Port Reading Railroad Company for that service? A. I understand it is fifteen cents a ton.

Q. That applies to both bituminous and anthracite, I am told? A. I understand it so.

At 1.30 P. M. a recess was taken until 2.30 P. M.

2.30 P. M.

Present—Messrs. McReynolds, Todd, Campbell and Moot.

Examination of AGNEW THOMPSON DICE, continued.

By JUDGE CAMPBELL:

Q. Counsel for the Government this morning directed attention of a witness being examined to the apparent discrepancy between the Philadelphia rate on anthracite coal and the alongside rate at points in New York harbor. My recollection is that the tariff rate to New York harbor is one dollar and ninety-five cents, and allowing for deduction in respect of coal trans-shipped by water alongside of the piers in New York the rate is one dollar and fifty-five cents. I understand that the Philadelphia rate is one dollar and seventy cents as compared with one dollar and ninety-five cents to New York, making a difference of twenty-five cents for the difference of the carriage between railway lines here and New York points, making a net rate here in Philadelphia one dollar and seventy cents as compared with the net rate in New York of one dollar and fifty-five cents being a difference of fifteen cents a ton, as I calculate it. Have you followed my statement? Is that in accordance with your understanding of the tariff rates made by the Reading Railway Company? A. Yes, sir.

Q. I call your attention to the additional service rendered to coal delivered in yards and so forth in the city of Philadelphia covered by this difference of fifteen cents a ton. How many miles of tracks, sidings and so forth, and so forth, are operated within the city limits of Philadelphia by the Philalelphia and Reading Railway Company system? A. Approximately three hundred miles.

Q. And the coal delivered in Philadelphia is distributed all over the territory covered by those three hundred miles of track? A. Yes, sir.

Q. When deliveries are made to coal yards are they in large quantities on an average or rather small quantities,

a few cars to a yard? A. Only a very few cars to each delivery.

Q. To generalize the subject and simplify the question what is the cost of distribution, switching, handling from the terminal tracks within the city of Philadelphia to the various coal yards to which the coal is to be delivered? A. A train of coal consisting of sixty carloads will come to Belmont or Nicetown, both of which are local points, from which the coal is switched for local delivery through the city of Philadelphia. A switch engine will take from ten to twenty cars from either Belmont or Nicetown and switch them around to the various yards, giving from one to five cars to each yard. I should say that it would easily cost us thirty cents a ton to do that local switching.

Q. So that considering the maintenance of the tracks, this extraordinary switching service, a differential of fifteen cents a ton as compared with placing coal alongside in New York and delivering it right into the yards in Philadelphia, will not compensate for the service? A. It cannot be done for that price.

Q. There is another difference, is there not, as between the service in New York and Philadelphia in this; that whereas the dealer has to cart his coal from alongside in New York to his yards, in Philadelphia it is delivered directly to the dealer in his yards? A. Yes, sir.

Q. And dumped into his bins? A. Yes, sir; that is correct.

Q. I omitted this morning to call your attention to another differentiation in the cost of handling anthracite coal, especially the troubles that come in Winter and Winter storms and rain and ice, and so forth and so forth. Please go into that in some detail. A. In order to understand it properly, the trade demands anthracite coal to be clean. That has led the coal companies to wash all of their coal in the breakers, and it is loaded into the railway cars wet. The smaller sizes, Chestnut and below, when it reaches market, in the Winter, is frozen in the cars, and it is extremely difficult to unload. We have experimented somewhat at our tidewater points with steam plants to thaw out the coal

before unloading. We have not been able to do it satisfactorily, and we unload to-day by pick and bar largely when the coal is frozen. We have to pick it and bar it out of the cars, having to bar the doors under the cars open. They are also frozen. It makes it very difficult and expensive unloading, and, also, results in considerable damage to the cars. That is a condition, of course, that applies particularly to anthracite coal, on account of its being loaded wet at the breakers.

Q. How is it about the effect of the Winter storms and snowdrifts, in respect to the expense of operation during the Winter? A. The conditions in our coal regions are, of course, particularly severe during the Winter. There is a great deal of snow and cold weather, being a mountainous district.

Q. Does that have any effect particularly on handling the trains up and down these grades, of which you have spoken, as compared with handling it on a comparatively level or low grade line? A. It has a very marked effect on those colliery branches with the hard grades. When we get zero weather we have to reduce our train load about thirty to forty per cent.

Q. You referred in your testimony to abandoned collieries and colliery branches, and so forth, but you went into no detail about it. What is the effect on the expenditure that has been made by the Railway Company to build coal branches and construct them and maintain them after the abandonment of the collieries? A. It leads to the abandonment of the branch leading to the tracks at the colliery which is abandoned. There are many cases where collieries have been abandoned on our system where the tracks have been taken up. The rail that was in the track, of course, we sold for scrap, but the other material is lost.

Q. So that the cost of construction of those colliery branches must be absorbed in the rates that have been received for transportation during the operation of the colliery? A. Yes, sir.

Q. There is another point, as to the comparison between the anthracite rate and the bituminous rate, to which your

attention has not been called. The Philadelphia and Reading Railway system was primarily built as an anthracite road, was it not? A. It was absolutely so.

Q. It had no other business except what has developed in the growth of business? A. That is correct.

Q. So that primarily, the capital expense and general expenses of all yards and mines, and the general maintenance of the tracks themselves had to be provided for in the revenue derived from the transportation of anthracite coal? A. That is true.

Q. Being in that condition, having the tracks provided, the capital account provided, general expenses provided for, when the question comes to be considered whether you shall or shall not carry over these same tracks, or substantially the same tracks, another commodity of lower value and at a cheaper rate, and whether you shall take that traffic at a lower rate or leave it, what would be considered the sound economic policy? A. In my opinion, to take the business, if you could get cost for it. If you could get more than cost, it would be that much more desirable. To take it and develop it.

Q. It is better to take it than to leave it, if you can get anything at all to the good? A. Absolutely so.

Q. What do you know of the subject of the increased cost of all kinds of conducting transportation that has been made between the time when the Philadelphia and Reading Railway Company began its operations December 1st, 1896, and the present time? A. In 1897, we were paying on the Shamokin Division for ordinary labor one dollar and twenty cents for a ten hour day. We were told that we were paying more than the market price for labor, as in the ore mines in the eastern part of Pennsylvania they were paying common labor ninety cents a day of ten hours. We reduced our pay to one dollar and ten cents per day of ten hours, or eleven cents per hour. A short time after this there were some readjustments made, and the rates of pay were raised. I do not recall now just what they were made at that time, but, in 1902 we had a general increase of ten per cent. to all classes of employes, and again in November,

1906, we had another ten per cent. increase; that is ten per cent. on the ten per cent., which means a total of twenty-one per cent. on the scale of wages paid before 1902. In addition to that, in 1906, in making the adjustments, particularly with our train men, we changed from a twelve-hour day to an eleven-hour day. That is, a man started out on a run, and if he made the run in twelve hours he was paid no overtime. We changed the basis then to eleven hours, so that if he makes the run in twelve hours now he gets a a day and one-eleventh, which meant another increase of about a little over eight per cent. There were also a number of concessions made at Harrisburg and Philadelphia, Reading, Newberry Junction and Port Reading, where we raised the pay of our yard men more than the ten per cent. to get them nearer on an equality with what some of the other roads were paying. We also gave them some concessions in the way of calling a crew. In the later days we called a crew for four o'clock in the afternoon. If the crew started out at four o'clock their time began at four o'clock. If he was delayed in the yard or at the terminal, did not get out until five o'clock, his time did not start until five o'clock. We made the concession that the crew should be paid for the time they were called. If we did not get them out of the yard it was our expense and not theirs. The net result, so far as the two increases in pay are concerned, the one in 1902 and the one in 1906, with the other concessions made in 1906, resulted in an increase of not less than twenty-one per cent. to all our employes and as high as twenty-nine and thirty per cent. to other employes, particularly in the train service.

Q. This increase of track service and train service? A. That includes all employes. In addition, there has been a tremendous increase in the price of materials, crossties and lumber and timber, and general supplies which a railroad company uses in the business of transportation.

Q. Notwithstanding all these increases of cost to which you have alluded, there was no increase in rates for transportation? A. I understand not. There has not been in the coal rate.

Cross examination.

By MR. MCREYNOLDS:

Q. Taking the freight rates over the Philadelphia and Reading Railway generally since 1897, have they advanced or declined? A. I could not answer that certainly. I think generally they have declined.

Q. Taking bituminous rates, especially since 1897, what has been their tendency? A. I cannot say.

Q. Has it been downward steadily? A. Not to my knowledge.

Q. What is the port near Philadelphia, or within the city limits of Philadelphia where anthracite coals are delivered f. o. b. for shipment by water? A. Port Richmond.

Q. What are the rates from the coal regions on anthracite coal delivered f. o. b. at that point? A. I think one dollar and seventy cents.

Q. The same rate that prevails in the city of Philadelphia limits? A. I am not informed on the rate question.

Q. Your understanding is it is one dollar and seventy cents?

By JUDGE CAMPBELL:

Q. With the allowance? A. Yes; with the allowance.

By MR. MCREYNOLDS:

Q. What do you mean by allowances at Port Richmond? A. I am not informed on the question of rates. What I testified to was the cost of handling. In a general way, I understand the rate is one dollar and seventy cents to Port Richmond, and that there may be some allowance made for coal that is transhipped. I could not testify that there is such an allowance, or, if there were, what the allowance might be, of my own knowledge.

Q. Does the Philadelphia and Reading Railway Company carry coal to Wilmington, Delaware? A. They do.

Q. What is the rate on coal to Wilmington? A. I do not know.

Q. You have no idea? A. No; I have not any.

Q. Do you know whether it is greater or less than it is to Philadelphia? A. No; I do not know.

Q. Please state whether or not all the collieries that are served by the tracks of the Philadelphia and Reading Railway Company lie to the northward of Port Clinton? A. They do.

Q. Please state whether all coal moving from every one of the collieries served by those tracks passing eastward comes to Port Clinton? A. All that is shipped eastward comes via Port Clinton.

Q. From Port Clinton how does that coal move? Does it pass down there to Reading? A. To Reading.

Q. So all coal from all the collieries served by the tracks of the Philadelphia and Reading Railway Company ultimately goes to Reading? A. All that is shipped east.

Q. From Reading that coal goes where? A. It goes on south over the main line through Bridgeport, and that going to Port Reading is diverted at Bridgeport, and that going to Philadelphia goes on south from Bridgeport to Philadelphia. Bridgeport is twenty miles north of Philadelphia.

Q. And that that is going to New York leaves the main tracks at that point? A. At Bridgeport.

Q. And passes on then over the lines ultimately to tidewater? A. Yes, sir.

Q. The bituminous coal that is received by the Philadelphia and Reading Railroad at Shippensburg takes what course in the movement to Philadelphia and New York? A. It goes from Shippensburg to Harrisburg, and thence east to Reading, and south from Bridgeport to Philadelphia.

Q. And that that goes to tide at New York follows the same course that anthracite does? A. As the anthracite does, being diverted at Bridgeport.

Q. And that bituminous coal is delivered over the same docks at Port Reading that the anthracite coal is delivered over? A. Yes.

Q. And in Philadelphia it is delivered on the same sid-

ings that the anthracite coal is delivered? A. Only the tide shipments.

Q. All tide shipments at Philadelphia go to Port Richmond, do they? A. Yes, sir.

Q. And those that are delivered within Philadelphia proper are delivered where? A. There is little bituminous coal distributed through Philadelphia, except that which is used for manufacturing purposes, steam making.

Q. Do you know how much the Philadelphia and Reading Railway Company gets for hauling bituminous coal from Shippensburg to Port Richmond near Philadelphia? A. I do not.

Q. What is the nearest independent colliery in the anthracite region which ships coal to Philadelphia and sells it upon its own account over the Philadelphia and Reading tracks? A. I am not familiar with that. I do not know what collieries sell their product to the Coal and Iron Company, and what ship direct.

Q. Is there any independent colliery that ships its coal to Philadelphia over the Philadelphia and Reading tracks and sells it in the market on its own account? A. I am not informed on that point.

Q. Do you know whether there is any independent colliery which ships its coals to New York over the Philadelphia and Reading tracks and sells it on its own account? A. I am not informed as to that.

Q. How far is the Pine Hill colliery from Port Clinton, and on what branch of the Philadelphia and Reading Railway is it? A. It is about thirty-five miles from Port Clinton, and is on the Mine Hill and Schuylkill Haven Railroad.

Q. How far is it from Philadelphia? A. About one hundred and ten miles.

Q. What is the rate on coal from Pine Hill to Philadelphia? A. I do not know.

Q. The same rate would apply to that that does to the region, would it not? A. I assume that it would.

Q. Would the same rate apply to coal shipped to New

York that applies to the general region? A. I assume it would; yes.

Q. Describe the railroad route leading from Pine Hill colliery to Port Clinton. State in a general way whether it does not follow the west branch of the Schuylkill River, with a gradual descending grade, until it gets to Port Clinton. A. The coal would be assembled at the Cressona scale and there weighed and classified and shipped and would then follow the Schuylkill River to Port Clinton.

Q. There is an easy haul, in other words all the way from Pine Hill to Port Clinton, and from there on to Philadelphia? A. For the loads.

Q. And there would be a heavier grade, of course, going back for the empties? A. Yes.

Q. What is the nearest colliery in the anthracite coal region to Philadelphia? A. Wadesville shaft.

Q. How far is Wadesville shaft to the northward of Port Clinton? A. About twenty-five miles.

Q. That would make it how far from Philadelphia? A. One hundred miles.

Q. How about the haul from Wadesville to Philadelphia; is it not down grade substantially the whole way, an easy haul? A. It is practically downgrade from Pottsville to Philadelphia. Wadesville is, however, on a colliery branch that has a very steep grade on it for the empties going into the colliery.

Q. Is not the haul from all these collieries in the general neighborhood of Pottsville to Port Clinton, and from Port Clinton to Philadelphia, in the main, down grade and an easy haul? A. For the loads; yes.

Q. To what road does the Philadelphia and Reading Railway deliver most of the anthracite coal as a connecting line, which is shipped on through rates? A. The New York Central.

Q. At what point? A. At Newberry Junction. It is the extreme northwestern part of our system. It is in the northern central part of Pennsylvania.

Q. Where do most of the coals delivered to the New

York Central at that point go? A. That is distributed throughout New York State. It goes to Buffalo Junction, and it is there transhipped for the West, and a great deal of it is loaded in box cars at the collieries and delivered to the New York Central at Newberry Junction for distribution through the entire West and Canada.

Q. Is that coal shipped on through rates, speaking generally, to its ultimate destination? A. I really do not know.

Q. You do not know whether there is a through rate over your road, and then over the New York Central to destination? A. I do not know of my own knowledge. I assume that there is.

Q. To what road does the Philadelphia and Reading Railway Company deliver the next largest amount of anthracite coal, to what point? A. To the Pennsylvania Railroad at Harrisburg, and also at Milton. Milton is in the direction of Newberry Junction and is thirty-two miles south of Newberry Junction.

Q. The coals that are delivered to the Pennsylvania Railroad at Harrisburg are, I presume, moved to various points on that line? A. Yes, sir.

Q. Are they moved upon through rates? A. I do not know.

Q. Do you know what the Philadelphia and Reading Railway Company gets for its part of the freight on coals that are delivered to the Pennsylvania Railroad at Harrsiburg? A. No, sir.

Q. You do not know what the division is? A. No.

Q. Nor the basis of the division? A. No, sir.

Q. Do you know what the assembling charge is that is allowed to the Philadelphia and Reading Railway on its rates? A. No; I do not.

Q. How far is it to New York harbor from the weighing scales on the lines of the Philadelphia and Reading Railway most distant from that point, and what are the weighing scales? A. At St. Clair and at Cressona and at Tamaqua are the scales that we weigh what we term the eastern coal. We have scales at Shamokin and at

Mahanoy Plane, but we do not weigh any eastern coal on those scales.

Q. Which one of those scale points, T[illegible]ua, St. Clair, or Cressona, is farthest from New Yo[illegible]. A. Tamaqua and St. Clair are nearly the same distance from New York.

Q. What is that distance? A. You mean, of course, via the route the coal takes?

Q. Via the route you take. A. About one hundred and sixty miles to Port Reading,

Q. How far is Cressona? A. Cressona is about a hundred and fifty-two miles.

Q. The lines of what other systems connect with those of the Philadelphia and Reading Railway in the coal region? A. We have at Tamaqua a connection with what are really the tracks of the Lehigh Coal and Navigation Company, but are operated by the Central Railroad of New Jersey. North of Tamaqua we have at Tamanend a connection with the Central Railroad of New Jersey, and they operate over our tracks from Tamanend to Silver Brook Junction, a distance of about five miles, and over that five miles of tracks they haul their coal that is produced in the Audenried district, in the Lehigh region. Those are the only connections we have with other lines in the coal region.

Q. Do you connect with the Delaware, Susquehanna and Schuylkill Railroad anywhere in the anthracite region? A. We do at Roan Junction.

Re-direct examination.

By JUDGE CAMPBELL:

Q. There is no interchange of coal traffic at Roan Junction, is there? A. None.

Q. The gentleman's inquiry and your answer omitted the bituminous coal destined to New York waters received by our route at Shippensburg and carried through Reading by way of Allentown, and there delivered to the Jersey Central. There is a large tonnage of bituminous coal that moves in that way, is there not? A. Yes, sir.

By MR. MCREYNOLDS:

Q. How far is it from Shippensburg, following the rails of the Philadelphia and Reading Railway to Reading, and then down over the route usually followed by bituminous coal destined for Port Reading? A. About two hundred and ten miles.

By JUDGE CAMPBELL:—

Q. If then Mr. Henderson testified to a distance of about two hundred and forty miles, he was mistaken, was he not? A. Yes, sir.

Q. The correct distance is about two hundred and ten miles? A. About two hundred and ten miles.

Q. So far as the movement of bituminous coal over your lines, whether it comes to you at Newberry Junction or at Shippensburg or at Park Junction, how is the train load compared with your handling of the anthracite coal in gathering it to the scales in the anthracite coal region? A. We handle from Newberry Junction south two thousand tons to a train. That is the bituminous coal coming via Newberry Junction. The coal coming via Shippensburg we handle in trains of twenty-five hundred or twenty-six hundred tons, and that is handled through to Rutherford in twenty-five-hundred-ton trains, and from Rutherford to Reading in twenty-five-hundred-ton trains. At Reading they are filled out to three-thousand-ton trains, and at Bridgeport they are reduced to two-thousand-ton trains. While in the anthracite region in the gathering of coal we have no place that we can handle trains of that size. In the operation of gathering the coal, even if the grades admitted of it, we would not be able to handle that kind of a train. We handle the Park Junction coal in trains of two thousand tons each.

Q. You get the bituminous in large quantities and not in small lots? A. Yes, sir. Solid trains.

Q. Is that the cheapest kind of traffic to handle, solid trains loads? A. Yes, sir. There is no gathering charge on that.

Q. Or no switching? A. No.

Q. Nor shifting out at sidings and picking up empties? A. The bulk of that goes through to tide.

GEORGE ZIEGLER, having been duly sworn, was examined as follows:—

By JUDGE CAMPBELL:—

Q. You are the Comptroller of the Philadelphia and Reading Railway Company? A. Yes, sir.

Q. You are in charge of the Accounting Department? A. Yes, sir.

Q. How long have you been in the service of the Philadelphia and Reading Railway Company, its predecessors, the Receivers, and the Philadelphia and Reading Railroad Company? A. Thirty-three to thirty-four years.

Q. Are you familiar, from your records and accounts, with the shipments of anthracite coal to Port Reading on New York harbor, so called? A. Yes, sir.

Q. I will thank you to give the total shipments of prepared, Pea, Buckwheat and smaller sizes of coal over the Philadelphia and Reading Railway and its connection, the Port Reading Railroad, to Port Reading, for the years 1903-4, 1904-5, 1905-6, 1906-7, 1907-8, and the receipts therefor. A. 1903-1904 was 1,502,644 tons; 1904-1905, 1,688,608 tons; 1905-1906, 1,537,822 tons; 1906-1907, 1,863,486 tons; 1907-1908, 2,002,763 tons.

Q. I would like you to state the tonnage of the smaller sizes during those several periods, below Buckwheat. A. 1903-1904, 240,423 tons; 1904-1905, 271,866 tons; 1905-1906, 362,926 tons; 1906-1907, 400,650 tons; 1907-1908, 552,762 tons.

Q. So that it appears that the proportions of smaller sizes have vastly grown in that period and more than doubled from the beginning to the last year? A. Yes, sir.

Q. Now be good enough, in the same way, to go over the receipts of the company from that tonnage. A. In 1903-1904 there was $2,750,965.50; 1904-1905, $3,069,638.58; 1905-1906, $2,763,927; 1906-1907, $3,356,790; 1907-1908, $3,554,504.35.

Q. From the rates what arbitrary deductions ought to be made in order to arrive at the net rate for the service of transportation? A. A gathering charge of thirty cents per ton; the adjustment, or boat freight, is charged forty cents ton; and the shipping expenses, fifteen cents a ton.

Q. Speaking of those shipping expenses, so far as the shipments over the Port Reading piers are concerned, who receives that proportion of the whole? A. The Port Reading Railroad.

Q. What does that include? A. That includes the interest on cost of yards and construction of piers, the maintenance and operation of same.

Q. Handling and switching over the piers? A. Yes, sir, the dumping of the coal.

Q. The weighing of the coal and screening of the coal? A. Yes sir.

Q. All these services are rendered by the Port Reading Railroad Company? A. Yes, sir.

Q. For which it receives an allowance of fifteen cents per ton? A. Yes sir.

Q. Does that apply also to bituminous? A. Yes, sir.

Q. Now be good enough, after making these deductions for the gathering expenses and charges, the adjustment allowed for the water carriage from the pier to the alongside and discharge at New York, together with those fifteen cents a ton for so-called shipping expenses, to tell us what is the net rate per ton received during each of these periods and realized and perceived by the Philadelphia and Reading Railway Company? A. If you will excuse me, that was the through rate.

Q. To the yards connected with the piers? A. Yes, sir. In 1903-1904 it was one dollar and one cent a ton; 1904-1905, ninety-nine and eight-tenths cents; 1905-1906, ninety-seven and seven-tenths cents; 1906-1907, ninety-six and five-tenths cents; 1908, ninety-two and five-tenths cents.

Q. What is the rate per ton per mile realized for this service of transportation? A. 1903-1904, sixty and five-hundredths cents; 1904-1905, sixty and four-hundredths cents; 1905-1906, sixty and three-hundredths cents; 1906-1907, sixty and two hundredths cents; 1907-1908, fifty and four-hundredths cents.

Q. You keep the accounts against the people who pay the freight and consequently have to be acquainted with

the tariff rates in effect, filed with the Interstate Commerce Commission? A. Yes, sir.

Q. Be good enough to state what was the system of Interstate rates last put in effect by the Receivers, covering shipments at Port Reading? A. On prepared sizes, one dollar and ninety-five cents.

Q. You observe there are different regions? A. Yes, Schuylkill Haven and Tamaqua, that is. On Pea coal, one dollar and eighty cents, and the smaller sizes, one dollar and sixty cents.

Q. We have not heard Schuylkill Haven mentioned as a shipping point? A. Let me explain that. Schuylkill Haven is the name we use for the billing point.

Q. This includes the St. Clair scale and the Cressona? A. Yes—no, we bill from St. Clair, too. There is a St. Clair billing office, too.

Q. Give the date that went into effect? A. "Taking effect September 7th, 1896."

Q. That tariff was in effect at the time the Receivers turned over the operations to the new Philadelphia and Reading Railway Company, was it not? A. Yes, sir.

Q. What was the first tariff published and filed with the Commission by the Philadelphia and Reading Railway Company covering this class of traffic? A. Coal Tariff 153a of 1901. That became effective September 25th, 1901. The Schuylkill Haven and Tamaqua rates were, prepared sizes one dollar and ninety-five cents; Pea coal, one dollar and eighty cents; Buck No. 1, one dollar and sixty-five cents; Buck No. 2, one dollar and fifty cents.

Q. I wish you would just compare the two together and state what change was effected. A. The change that was made was an increase of five cents a ton. The first tariff rated the smaller sizes one dollar and sixty cents, and then they made a division between Buckwheat No. 1, which they made one dollar and sixty-five cents, and Buckwheat No. 2, one dollar and fifty cents.

Q. That is all the change that was effected by that? A. That was the only change. I want to call your attention to the fact that this tariff reads also from Pine Grove.

Q. There is in one of those, perhaps both of those tariffs, a tariff for Lykens Valley coal? A. Yes, from Pine Grove. That is what I wanted to call your attention to.

Q. But no coal moves by way of Pine Grove, does there? A. None now, and we do not bill from that point.

Q. Will you be good enough to refer to the tariff now in effect, giving the date of its publication and the rates? A. Tariff 202, of 1906, effective September 4th, 1906. Prepared sizes, one dollar and ninety-five cents. Pea coal, one dollar and eighty cents. Buck No. 1, one dollar and sixty-five cents, and Buck No. 2, one dollar and fifty cents. They are the same rates as in the previous tariff.

Q. There is a notation on all these tariffs. Please read it. A. I will take the last tariff: "An allowance of forty cents per gross ton will be made from above rates for barge service and discharging in New York harbor; and also for the purpose of establishing an inland proportional rate f. o. b. vessel upon shipments destined to points on Long Island Sound and the Atlantic Coast, to which no through rates are established."

Q. Is that, in substance, on all those three tariffs? A. That is not. That is on the last tariff. Q. As that is the tariff that is now in effect, kindly explain its purpose and what it means. A. Upon the full tariff rate a claim is presented which is substantiated by our agent, that the coal has gone over the pier into boats. The forty cents per ton allowance is then paid upon that claim.

Q. In accordance with the tariff? A. In accordance with the tariff.

Q. Prior to this tariff which is now in effect and which is the one that is presently in discussion and now involved in this case, was there a higher rate collected by the transportation company, whether it was the Receivers or the old Railroad Company, on Lykens Valley coal of higher value, practically, to Port Reading or New York tide? A. If any shipments went to New York tide under those tariffs the gross rates were collected.

Q. If it was via Pine Grove, the route would be different; would it come to Cressona scale or would it go down to

Lebanon and down in that direction? A. It could go in both directions.

Q. But if it came in either direction from Pine Grove and was billed from Pine Grove, it would take the higher rate? A. It would take the higher rate.

Q. That system has been abrogated by the present existing tariff? A. Yes, sir.

Q. And the coal, as a matter of fact, I understand you to state, now proceeds by way of Cressona, or the Cressona scales? A. Yes, sir.

Q. I want to call your attention to the shipments that are made to Port Reading from the Coleraine colliery, belonging to the Van Wickel estate, through the Tamaqua yard, and ask you to tell us what that amounts to for the last three fiscal years, that coal? A. The tonnage going to Port Reading from Van Wickel estate, Coleraine colliery, in 1905-1906 was two thousand six hundred and twenty-seven tons fourteen hundred-weight; 1906-1907 two thousand and forty-nine tons; 1907-1908, five thousand six hundred and twenty-nine tons nineteen hundred-weight.

Q. That covers all the Port Reading anthracite coal carried over the Philadelphia and Reading lines from collieries not located on the lines of the Philadelphia and Reading Railway? A. Yes, sir.

Q. I would like to call your attention to the comparative increase of anthracite tonnage with bituminous and merchandise tonnage from the beginning of the operations of the Philadelphia and Reading Railway Company until the end of the last fiscal year. I recommend you to take, however, the first full fiscal year, from 1897 to 1898, and the last fiscal year, 1907-1908, and state the percentage of increase in revenue and also state the increase in tonnage. A. The receipts from anthracite coal in the fiscal year ending in 1898 were $8,517,618.13; for the year ending June 30th, 1908, $13,026,030.58.

Q. Approximately an increase of what per cent.? A. A percentage increase of fifty-two and nine-tenths.

Q. How about bituminous? A. The bituminous receipts for the year ending June 30th, 1898, were $1,414,277.84,

and for the year ending June 30th, 1908, $5,551,241.53, an increase of two hundred and ninety-two and five tenths per cent.

Q. Merchandise? A. For the year ending June 30th, 1898, the receipts were $7,163,169.88; for the year ending June 30th, 1908, $13,502,925.96, an increase of eighty-eight and a half per cent.

Q. So that, while the anthracite traffic increased very considerably, nearly doubled or more than doubled, the two other classes, bituminous and merchandise, increased vastly more? A. Yes, sir.

Q. Suppose you give us the percentage of anthracite to the total freight for the same periods. Take the percentage of anthracite to total freight revenues for the same period. The anthracite receipts for the fiscal year ending the 30th of June, 1898, were $8,517,618.13. A. Forty-nine and eight-tenths per cent. of the total freight receipts.

Q. And for the year ending June 30th, 1908? A. Forty and six-tenths per cent.

Q. Suppose you give me the comparative tonnage of anthracite, bituminous and merchandise for the same period. A. For June 30th, 1898, anthracite was 9,464,598 tons, and for June 30th, 1908, was 13,537,464 tons.

Q. Bituminous? A. Bituminous, 3,517,070 tons, for 1898, and for 1908, 10,816,439 tons.

Q. Merchandise? A. Merchandise was 9,862,641 tons for 1898; for the year ending June 30th, 1908, it was 19,249,682 tons.

Q. I want you to read into the record the amount of tonnage delivered over the tracks of the Philadelphia and Reading Railway Company and Central Railroad Company of New Jersey for transportation by way of Hauck's Switch, Allentown and Bound Brook, from July 1st, 1899, to June 30th, 1908, inclusive. I want to show particularly the tonnage first of 1900, which passed over the Central Railroad of New Jersey by way of those various junction points. A. Via Park Junction for the year ending June 30th, 1900, was 511,101 tons, ten hundred-weight, for June 30th, 1901, 488,509 tons, six hundred-weight.

Q. Now take the same two periods for the interchange at Hauck's. A. June 30th, 1900, for Hauck's was 839,382 tons, fourteen hundred-weight; for 1901, 944,013 tons, four hundred-weight. Via Allentown, for June 30th, 1900, 105,397 tons, three hundred-weight; for 1901, 165,561 tons, six hundred-weight.

Q. Omitting the intervening periods, tell us what that interchange amounted to for the years 1907 and 1908 respectively at those various points. A. June 30th, 1907, via Park Junction was 1,594,515 tons, nineteen hundred-weight; for 1908, 1,503,388 tons. For Hauck's, was 1,197,167 tons, nine hundred-weight; for 1908, 1,197,058 tons, twelve hundred-weight. Via Allentown, for 1907, 1,088,388 tons, four hundred-weight; 1908, 1,013,979 tons, four hundred-weight.

Q. What were the total tonnages delivered by way of those various junction points from the year 1900 to the year 1908 inclusive? A. Via Park Junction, 8,859,559 tons, eight hundred-weight. Via Hauck's, 9,853,054 tons, five hundred-weight. Via Allentown, 5,205,985 tons, sixteen hundred-weight.

Q. The tonnage interchange at Hauck's was delivered to the Jersey Central directly at that point? A. Yes, sir.

Q. So at Allentown, the tonnage delivered to the Central was delivered to that company at that point? A. Yes, sir.

Q. As to the tonnage by way of Park Junction, it was carried forward over the tracks of the Philadelphia and Reading Railway and delivered to the Central Railroad Company of New Jersey at Bound Brook Junction? A. Yes, sir.

Q. A short distance west of Bound Brook? A. Yes, sir.

Cross examination.

By MR. MCREYNOLDS:

Q. You have spoken of three separate tariffs put into effect for anthracite coal carried over the lines of the Philadelphia and Reading Railway, or its predecessor, to Port Reading, New York. All these have given the rate

on prepared sizes as one dollar and ninety-five cents, from which there was to be some sort of an allowance made for boat freight. I will ask you whether or not, as a matter of fact, in order to arrive at the f. o. b. rate at Port Reading, you do not subtract from the figures given in all three of these tariff sheets, forty cents? A. Yes, sir.

Q. So the f. o. b. rate at Port Reading, under all these sheets, has been forty cents less than the price quoted for New York? A. Than the price quoted in those tariffs, yes, sir.

Q. While the price quoted in those tariffs, therefore, for New York was one dollar and ninety-five cents, the price f. o. b. Port Reading is one dollar and fifty-five cents. and that is the sum which the shipper really pays? A. Yes, sir. Let me explain. I explained, you understand, that we collected the gross and then refunded the forty cents.

Q. Why is that? Why is it that you collect this gross one dollar and ninety-five cents and then refund the forty cents? What is the explanation of that? A. To be sure that the coal went into boats.

Q. What difference does it make to the railroad whether the coal goes into boats or not? A. Because the commercial rate would be different at that point, if there were any deliveries to manufacturers.

Q. What is the commerical rate now to manufacturers at Port Reading? A. There are no manuacturers at Port Reading now, but that was the intention, as I understand it, of the rate, so that the shipment would not be delivered to a consumer at Port Reading on his freight track.

Q. If a consumer got his coal now at Port Reading, what rate would he pay under these tariff rates? A. I cannot answer that. I do not post myself on the rates, that is on that rate.

Q. You were asked something about what arbitrary deductions had been made from this published rate given in the three tariffs, to which you referred, in order to arrive at the net amount received by the Philadelphia and

Reading Railway Company for the service of transportation, and you said, of course, that you should take off the forty cents boat rate which was returned when the coals were put in barges, and you said that fifteen cents also should be taken off, which is an allowance given to the Port Reading Railroad for handling the coal at the docks, and then you said there should be taken off thirty cents for gathering charges. Explain to us what you mean by that thirty cents for gathering charges. A. It is a charge that is made for gathering the coal in the region before it gets to the concentrating point from which we bill it.

Q. Let us go into that a little bit. Where are those concentrating points for coal shipped to New York harbor? A. At Cressona and St. Clair.

Q. And Tamaqua? A. And Tamaqua.

Q. The railroad estimates that it cost them thirty cents to gather the coal from the various mines and bring it into those gathering points, does it? A. Yes, sir.

Q. And therefore for gathering charges and the services performed up to the time the coal drops from those gathering points on its way to tide, they allow thirty cents? A. Yes, sir.

Q. Do your books show that sort of a division? A. That does not appear on our books as a separate item. It is included in the tariff which we charge.

Q. How do you arrive at that thirty cents if it is not on your books? A. We are advised that it costs thirty cents to gather it.

Q. You are advised by whom? A. By the Transportation Department. They say it will cost at least thirty cents to gather this coal and concentrate it.

Q. Now you have other rates, have you not, with other roads to whom you deliver coals gathered by you in the anthracite regions to be delivered to points beyond your lines? A. Yes, sir, some roads.

Q. In making the division between your line and those connecting lines, do you charge anything in an initial way for gathering charges? A. Yes, sir.

Q. How much? A. Thirty cents.

Q. Then how do you prorate between the Philadelphia and Reading Railway and the connecting line? A. The Reading Railway gets an arbitrary of the thirty cents and the balance of the rate is divided on agreed divisions based on mileage.

Q. That mileage commences at what point? A. At the billing point, the scale; that is the billing point.

Q. These collecting points that you have described to us, and perhaps others? A. That is what I mean, the concentrating point from which we waybill the coal.

Q. Let me see, so that we may have the matter clear upon the record. The Philadelphia and Reading Railway Company delivers a good deal of coal to the Pennsylvania Railroad Company at Harrisburg to be shipped to various points along the line of the Pennsylvania, does it not? A. We deliver considerable coal to the Pennsylvania at Harrisburg.

Q. And that coal is shipped upon through rates agreed upon by your road and the Pennsylvania Railroad? A. No, sir.

Q. How is it shipped? A. It is shipped on a rate named to Harrisburg or Milton, as the case may be.

By JUDGE CAMPBELL:

Q. A local rate on our own line? A. A local rate on our own line.

By MR. MCREYNOLDS:

Q. Then with what roads do you have through rates? A. The Baltimore and Ohio and Western Maryland.

Q. At what points do you deliver coal to the Baltimore and Ohio to be shipped upon through rates to points on their lines? A. We deliver coal at Shippensburg, but there is no direct connection there with the Baltimore and Ohio, although the coal moves on a through rate. We make deliveries at that point to the Western Maryland, or the Cumberland Valley, as the case may be, and as the cars are routed, they in turn make the deliveries to the Baltimore and Ohio.

Q. In prorating between your own and these connect-

ing lines, you first take out of the through rate thirty cents? A. Yes, sir.

Q. Which you put to your own credit? A. Yes, sir.

Q. Then you compute the distance from the concentrating point on your line from which the coal moves to its destination, and divide up according to the distances each carries the freight, substantially? A. Yes, substantially.

Q. You gave a summary of the net rates per ton received by the Philadelphia and Reading Railway Company for anthracite coal carried over its lines to Port Reading and showed a decreasing amount per ton received? A. Yes, sir.

Q. The freight rate upon the sizes has been substantially the same, has it not, since 1896? A. Yes, sir.

Q. And the difference comes because of the larger *pro rata* proportion of the smaller sizes carried? A. Yes, sir.

Q. Do you know how much the Philadelphia and Reading Railway Company get for transporting bituminous coals received at Shippensburg, carried by way of Reading and thence on to Port Reading at tide, New York? A. No, sir.

Q. You do not know what proportion of that rate it gets? A. Not offhand, no, sir.

Q. Do you know what the rate is from the mine? A. No, sir.

Q. You have it in your office? A. Oh, yes.

Q. Would you be good enough to get that rate for us, tell us what the through rate is on that bituminous coal and what proportion is allotted for carrying the coals from Shippensburg and delivering them f. o. b. at New York bay?

JUDGE CAMPBELL:—I emphatically object to the disclosure of those private proportions. The Interstate Commerce Commission do not require it. It is the private business of these connecting lines, with which no one else is concerned, and has a tendency to disclose to competing lines private business arrangements which are of no public concern.

By Mr. McREYNOLDS:

Q. Will you furnish those things to us for the record? A. Not unless advised by counsel to do so.

Q. If advised by counsel to do so, you will? A. Yes, sir.

Q. You were asked in reference to the figures showing the tonnage carried over the lines of the Philadelphia and Reading Railway for certain years. Can you give us those figures for the years 1900-1901, separating them into anthracite, bituminous and other merchandise? A. Tonnage?

Q. Yes, tonnage and receipts. A. Yes, sir. Total tonnage for the year ending June 30th, 1900, anthracite, ten million six hundred and seventy-two thousand five hundred and fifty-six tons. Gross receipts, $9,547,876.90. Bituminous, four million five hundred and thirty-nine thousand seven hundred and nineteen tons. Gross receipts, $1,823,325.87. Merchandise, for June 30th, 1900, fourteen million one hundred and ninety-two thousand and nineteen tons. Gross receipts, $9,750,601. Total for the year ending June 30th, 1901, anthracite, tonnage ten million five hundred and twenty-three thousand eight hundred and ninety-one tons. Gross receipts, $9,835,086.87. Bituminous tonnage, five million eighteen thousand four hundred and ninety-one tons. Gross receipts, $2,556,220.59. Merchandise, tonnage fourteen million five hundred and thirty-five thousand and eighty-three tons. Receipts, $10,079,427.41.

Q. Do you know why it is that the Philadelphia and Reading Railway Company do not make through tariff rates on anthracite coal with the Pennsylvania line? A. I do not.

Q. Does it make through rates on other merchandise delivered to the Pennsylvania at Harrisburg? A. Yes, sir.

Q. Can you tell us, from any data that you have or from your recollection, what the freight rates from the coal regions to Port Reading on prepared sizes of anthracite were for the year 1892? A. I cannot, sir.

Q. You can ascertain that and give it to us, can you

not, from the tariffs in your office? A. I could not promise it.

Q. If you can find them, without too much trouble, please give them to us. A. I will if I can, yes, sir.

Re-direct examination.

By JUDGE CAMPBELL:

Q. I understood from Mr. Henderson's testimony that the rule was that the bituminous coal interchanged between the various originating and terminal railroads, the tariff rate was distributed on a mileage basis without arbitrarics? A. Yes, sir.

Q. Over the lines in respect of which the gentleman has inquired, you can ascertain both the through tariff rate and also the several proportions of mileage over which the coal is carried by each road, can you not, without difficulty? A. Yes, sir.

Q. From which the gentleman can readily make the computation of the proportion of the full rate which the Philadelphia and Reading Railway Company realizes? A. Yes, sir.

JOHN F. AUCH, having been duly affirmed, was examined as follows:—

By JUDGE CAMPBELL:

Q. What is your present occupation? A. General Freight Agent, Philadelphia and Reading Railway.

Q. I would like you to begin at the beginning and trace down your connection with the business of the Philadelphia and Reading Railway Company, briefly, but fully enough to cover your experience and knowledge. A. I first entered the employ of the Philadelphia and Reading Railroad Company in 1875, in the capacity of telegraph operator, and served in that capacity until 1879. I was then appointed station agent and served in the capacity of station agent from 1879 until 1884, and in 1884 entered the General Freight Department, and have continued consecutively in that department up to the present time.

Q. Through all administrations? A. Yes, sir, and receiverships.

Q. What knowledge have you of the interchange of traffic between the Philadelphia and Reading Railroad Company, its Receivers, and the Philadelphia and Reading Railway Company since the receivership, and the Central Railroad Company of New Jersey, prior to 1901, at various points of connection? A. In 1875, when I first entered the service of the Philadelphia and Reading Railroad Company, it was confined in its operations to the limits of its own tracks. There was at that time practically no interchange between the Central Railroad of New Jersey and the Philadelphia and Reading Railroad Company. The Central Railroad of New Jersey was likewise limited in its operation. In fact, the Central Railroad of New Jersey in the early 70's did no business beyond Phillipsburg or Easton, which was the western terminus of its line. The relations of the Philadelphia and Reading and its Receivers with the Central Railroad of New Jersey up to say 1884 were practically the same as the relations between the Philadelphia and Reading Railroad Company and its Receivers to any other railroad company; that is, they had no joint rates, no joint routes, nor no interchange.

Q. Have you not overlooked the change in the situation which resulted from the construction of the North Penn Branch from Jenkintown to the Delaware River, the construction of the Delaware and Bound Brook Railroad to Bound Brook Junction, New Jersey, and its subsequent lease of the North Penn and the Bound Brook to the Philadelphia and Reading Railroad Company in 1879, for the interchange of traffic between Philadelphia and New York? A. I did not overlook it. I did not think that I had gotten to that point yet.

Q. As you had passed 1879 and gotten up to 1884, I thought you had overlooked it. A. This is true, there is a breach there that ought to be covered. I think it was in 1879 that the Philadelphia and Reading Railroad Company leased the North Pennsylvania Railroad Company.

We found, when that lease was made, that there had been relations established prior to the leasing of the North Penn, between the Central Railroad of New Jersey and the North Pennsylvania Railroad Company. In 1876 the Delaware and Bound Brook was opened, and of course the Philadelphia and Reading Railroad Company acquired that portion of its line with its lease of the North Pennsylvania Railroad.

Q. In 1879? A. In 1879. Now there was an interchange between the Central Railroad of New Jersey and the North Pennsylvania Railroad Company at Bethlehem, that continued—or more especially between the Lehigh and Susquehanna—and that continued until the Delaware and Bound Brook was opened up in 1876.

Q. The Lehigh and Susquehanna being a road constructed by the Lehigh Coal and Navigation Company and about 1879 leased to the Central Railroad Company of New Jersey? A. I do not know just the date when it was leased.

Q. But it was leased and is now being operated by the Central Railroad Company of New Jersey? A. Yes, but there was an arrangement between the Lehigh and Susquehanna and the North Pennsylvania Railroad at Bethlehem. It was not until the leasing of the North Pennsylvania Railroad that this interchange with the Central Railroad of New Jersey direct via Bound Brook was accomplished, and that was in 1879. I would like to explain right here that to the leasing of the North Penn—I will call it North Penn for short—there was some little interchange between the Philadelphia and Reading Railroad and the Central Railroad of New Jersey via Allentown, but that interchange was not a direct interchange. It was effected only in connection with the Lehigh Valley, whose tracks extended from Allentown to Easton and there connected with the Central Railroad of New Jersey. At that time of course—say in 1884—we, that is the Philadelphia and Reading, by reason of its lease of the Catawissa at Williamsport, had established a connection with the Lehigh and Susquehanna Division of the Central Railroad of New

Jersey at Tamanend or Hauck's Switch, which is practically one and the same place. In 1884, the first lease made between the Philadelphia and Reading Railroad Company and the Central Railroad of New Jersey was consummated, and immediately after the making of that lease the Philadelphia and Reading and the Central Railroad of New Jersey began the establishment of joint through rates and routes. Prior to that time the Central Railroad of New Jersey, as I have previously stated, had no joint rates extending to territory beyond its own rails. The Philadelphia and Reading was in practically the same position. The only connection that we had with any other line was that obtained through the acquisition of the Catawissa and Williamsport, which gave us a connection with the Delaware, Lackawanna and Western at Rupert. We had no other connection except that which was obtained with the Lehigh Valley Railroad at Allentown via Reading and Allentown, that is, the East Pennsylvania Branch. We did undertake to handle through traffic in a limited way with the Lehigh Valley, who had enabled us to reach limited territory in New York State via Waverly.

Q. And the Erie Railroad? A. The Erie Railroad. The opening of the Perkiomen Railroad enabled us to make that connection, so that during the Centennial, in 1876, through passengers and through traffic were handled via Waverly and the Erie road via Allentown and via the Perkiomen. The lines were further extended in about 1884—I could not give you the exact date—by the building of the Beech Creek and Fall Brook.

Q. Connecting with the New York Central system? A. Now in the New York Central, connecting with the Philadelphia and Reading at Newberry Junction. The building of those lines gave us a direct connection at Newberry Junction with the New York Central system through the Fall Brook, and put us into the bituminous coal regions, in the Beech Creek and Clearfield districts. Then in 1886 our facilities were further enlarged by the building of the Baltimore and Ohio Railroad, or the extension,

rather, of the Baltimore and Ohio Railroad from Baltimore to Philadelphia and connecting with the Philadelphia and Reading in this city. In 1891 the Philadelphia and Reading extended its line somewhat by building a bridge over the Susquehanna River at Harrisburg and building between Harrisburg and Bowmandale, giving us a through road west as far as Shippensburg. At Shippensburg we connected with the Western Maryland Railroad, and over the Western Maryland we carried to a connection with the Baltimore and Ohio Railroad at Shippensburg and Hagerstown. Now to go back to 1875, I think I have already stated that the traffic of the Philadelphia and Reading Railroad was limited at that time to its own rails. Its principal business at that time was the transportation of anthracite coal from Schuylkill County to tide, or Philadelphia.

Q. Tide at Philadelphia? A. Yes. There had, of course, been some growth in the development, that is, industrial development, in the Schuylkill Valley, and it is my recollection that the market afforded at Philadelphia even for transportation for the anthracite coal did not properly take care of the mine productions and there was continual pressure, both from the industries and the mining industries, to enlarge and afford more extended markets. That pressure resulted, as I have previously stated, in the establishment in 1884 of a number of joint routes and what is called co-operative fast freight lines, operating over the Central Railroad of New Jersey and the Philadelphia and Reading, via the several junction points, that is, via Allentown, via Tamaqua, via Tamanend or Hauck's Switch, via Boundbrook and via Bethlehem. The direct connection with the Central Railroad of New Jersey at Allentown was not effected, though, until 1890. At that time what was known as the Allentown Terminal Railroad was opened and afforded the Philadelphia and Reading and the Central Railroad a direct physical connection at that point. Prior to that time, as I have already stated, the business had to be handled between Allentown and Easton by the Lehigh Valley. Now I

have referred to a connection at Rupert with the Delaware, Lackawanna and Western.

Q. On the Catawissa? A. On the Catawissa Branch. We also did have an interchange with the Delaware, Lackawanna and Western Railroad for business to and from New York, by making the delivery to the Lehigh Valley Railroad at Allentown and the Lehigh Valley carrying the traffic over to Phillipsburg and there connecting with the D., L. & W., giving us a route into New York, so that the section of the Philadelphia and Reading north and west of Reading could be served in that way. We were absolutely without any means of successfully competing for or handling any traffic originating in the vicinity of Philadelphia, for New York, because the route by Allentown was circuitous and it was impossible to make the time that was essential to enable us to successfully compete for business between Philadelphia and New York. The same might be said with respect to the Lackawanna route as serving the territory north and west of Reading. It was a slow route. We were interfered with more or less by the intervention of the Lehigh Valley there, a third party, to handle the business and the facilities were not very good. They did not undertake to run through cars in those days, like they do now, and never thought of running through trains, so that it meant a transfer at Phillipsburg and another transfer at Allentown, en route between New York and its ultimate destination, even on the line of the Philadelphia and Reading road. From 1879, when the Philadelphia and Reading leased the North Pennsylvania Railroad, which effected this connection with the Central Railroad of New Jersey via Bound Brook, there was a steady growth of traffic interchange between the Philadelphia and Reading Railway territory south of Reading and in the vicinity of Philadelphia. This territory south of Reading was advanced in industrial development and we could not begin to give the manufacturers located on the line of the Philadelphia and Reading Railroad the markets which were required for the output of those concerns. I believe that those de-

mands made upon the Railroad Company for enlarged distributing facilities were instrumental largely in determining the policy of the company in leasing first the North Pennsylvania Railroad. We were threatened, that is, the company was threatened, between 1875 and 1879 with the loss of a number of industries that had located in the Schuylkill Valley on the supposition that they would get proper transportation facilities. Then we had the advent of the Pennsylvania's line up the Schuylkill Valley. I do not remember just what date that was, but that only tended to disturb matters from an industrial point of view, so far as those industries located on our line were concerned. We had at that time, as I previously stated, no joint rates in connection with the Pennsylvania Railroad, nor any others, except as I have explained, subsequent to 1884.

Q. I think you have gone sufficiently into the preliminary matters. I would like you to state the conditions as to the interchange of traffic at these various points between the Reading system and the Jersey Central system prior to January, 1901—immediately prior, I mean to say. Of course, there had been a continual growth of this interchange, but immediately before, give us an idea of the extent of this interchange at those points. A. The relations between the Philadelphia and Reading Railway Company and the Central Railroad of New Jersey, bringing us up to 1901, were the outgrowth of the growth in traffic, and there has been no material change in the relations between the Central Railroad of New Jersey and the Philadelphia and Reading since 1901; that is to say, that all of those arrangements for through traffic had been consummated prior to 1901. There has not been a new arrangement made since that time.

Q. Give us a general idea of the volume of traffic which was interchanged between the two companies at these various points? Give us just a general idea; signify whether it was important or not. A. My judgment is that it is vitally important; that in tonnage it would be difficult for me to give you an estimate as to what it is

worth from a tonnage standpoint, but I take it that that has already been presented.

Q. State generally about the interchange of merchandise and bituminous coal traffic over the New Jersey at Hauck's, and Allentown, Bethlehem, Philadelphia and so forth. A. I would say the value of the tonnage interchanged between the Central Railroad of New Jersey and the Philadelphia and Reading Railroad in dollars and cents is at least sixty per cent. of its entire business, that is, its gross receipts. That includes bituminous coal, general merchandise and all the traffic interchanged. I am not figuring or considering in any way the passenger traffic.

Q. These proportions comparatively existed prior to 1901, I mean in the importance of the volume of the traffic? A. The facility was in existence prior to 1901. Of course, there may have been some growth due to the general growth in business.

Q. The evidence is that there has been a vast growth since, but that there was a valuable and important interchange prior to 1901 at those several points of junction? A. Oh, yes.

Q. Which was invaluable to the Philadelphia and Reading Railway system? A. Yes, sir, I should say it was invaluable, that the interchange was necessary to their existence.

Cross examination.

By MR. MCREYNOLDS:

Q. As general freight agent of the Philadelphia and Reading Railway Company, do you make freight rates? A. Yes, sir.

Q. How long have you been the general freight agent? A. I have been general freight agent since the 1st of May, 1908, and prior to that time was assistant general freight agent from 1894 until last year, assistant general freight agent, in the general office.

Q. Have you ever had anything to do with making the rates on anthracite coal, from the anthracite coal regions to tide at New York? A. No, sir.

Q. Who has made those since you have been connected with the system? A. The coal freight agent, under the direction of the Second Vice-President.

Q. Why is it that the anthracite coal rates are made by one party and the other rates by you? A. Simply because there is a sufficient volume of traffic there to require the attention of another man.

Q. You have nothing whatever to do, therefore, with the anthracite coal rates? A. I do not pretend to have anything to do with them.

By JUDGE CAMPBELL:

Q. Or bituminous rates, either? A. No.

By MR. MCREYNOLDS:

Q. Do you know the rate on anthracite coals from the coal region to the city of Philadelphia? A. I think it is one dollar and seventy cents.

Q. What is the rate from those same regions to Port Richmond? A. One dollar and seventy cents. I am only talking from recollection. I understand those are the rates.

Q. Is that the f. o. b. rate for coal delivered in barges at Port Richmond? A. I could not tell you about that.

Q. Do you know what the rate is from the coal regions to Wilmington, Delaware? A. One dollar and seventy cents. When I say one dollar and seventy cents, I mean on the prepared sizes. Of course, I could not tell you what the rate is on the small sizes.

Q. There is a corresponding reduction on the smaller sizes? A. Certainly.

Q. You exchange freight with the Pennsylvania lines, do you not? A. We do at the present time, yes, sir.

Q. At what points? A. Philadelphia, or Belmont, specifically.

Q. Harrisburg? A. Harrisburg and Milton.

Q. How long has that exchange of freights between the two roads been going on? A. That was made in 1890; the first joint rate in connection with the Pennsylvania Railroad was made in 1890.

Q. Is there a very considerable volume of freight ex-

changed between the two on through freight rates? A. There is some important business exchanged between the two companies.

Q. You exchange freight with substantially every road that you connect with, do you not? A. We do to-day, yes, sir.

Q. And have been doing so since 1890 or thereabouts? A. Yes. These arrangements have been starting with 1884. That is when we started out to make these joint arrangements. We did not reach the Pennsylvania Railroad, however, until 1890.

Q. Do you exchange anthracite coal on through rates with the Pennsylvania Railroad? A. Yes, sir.

Q. Where? A. Philadelphia.

Q. To be carried to what points? A. Baltimore, Washington and other points on the Philadelphia, Baltimore and Washington. Now I said Philadelphia; I think that all the coal that is exchanged with the Pennsylvania Railroad at Philadelphia, or Belmont, which is really the name of the transfer point, is for points on the Philadelphia, Baltimore and Washington.

By JUDGE CAMPBELL:

Q. It is not an interchange, it is coal originating on the Philadelphia and Reading that is delivered to the Pennsylvania lines here? A. Yes. I assumed that that is what he meant. I will put it this way, that it delivers to the Pennsylvania Railroad, for delivery to concerns located on that system, anthracite coal which originates on the Philadelphia and Reading Railway in Schuylkill County, under through established rates.

By MR. MCREYNOLDS:

Q. Do you deliver coal to any point on the Pennsylvania lines under similar arrangements? A. To the best of my knowledge, yes. I do not want to be misunderstood as being thoroughly familiar with all the detail in connection with the coal rates.

Q. You exchange freight with the Lehigh Valley Railroad? A. Yes, sir.

Q. And have for how many years? A. Ever since 1876.

Q. At what points do you now exchange with the Lehigh Valley? A. We now exchange with the Lehigh Valley at Allentown and at Quakake, a point near Tamanend, and at Port Reading Crossing. That is, however, an insignificant interchange.

Q. Do you exchange freight with the Lehigh Valley Railroad, to be carried on through freight rates via Allentown to points on New York harbor? A. Yes, sir.

Q. And you follow the same course with freight moving by way of Tamanend? A. Yes, sir, by Quakake.

Q. And the same with reference to freight moving via Reading Crossing? A. Yes.

Q. How do you exchange freight with the Delaware, Lackawanna and Western? A. At Rupert, a point near Bloomsburg on the Catawissa.

Q. Do you exchange freight there to be carried on through rates over the lines of the Delaware, Lackawanna and Western to New York harbor points? A. No, sir. We do not handle any freight in connection with the Delaware, Lackawanna and Western for New York harbor points.

Q. Where does the freight that you handle in connection with it go? A. It would be going to points west of New York harbor, on their line west.

Q. To points in New Jersey, Pennsylvania and points in New York west of New York harbor? A. Yes, sir.

By JUDGE CAMPBELL:

Q. And beyond the State of New York? A. Yes.

By MR. MCREYNOLDS:

Q. They could carry the freights you deliver to them at Rupert at New York harbor over their lines? A. I do not know whether they could or not. We certainly could not carry any freight from Philadelphia via Rupert to New York harbor.

Q. But you could carry freight from Milton and west of that by way of the Delaware, Lackawanna and Western to New York harbor? A. That would not be very satisfactory to us.

Q. On what point on the waters of New York harbor does the Lehigh Valley Railroad Company deliver the

freight which you turn over to it at Port Reading Crossing? A. Jersey City.

Q. At whose terminals? A. Lehigh Valley terminals, so far as we know.

Q. They have terminals of their own there, have they? A. Yes, sir.

Q. Separate and distinct from the terminals of the Central Railroad of New Jersey? A. Oh, yes.

Q. Do you deliver any freight to the Pennsylvania Railroad for delivery at New York harbor points? A. Occasionally there is. It is not worth mentioning.

Q. At what points is that delivered? A. It depends on where it originates. If it originated south of Reading, it would be delivered to the Pennsylvania Railroad at Philadelphia. If it originated at Williamsport, it would be delivered to the Pennsylvania Railroad at Milton. I would like to modify that by saying that I am not sure that that would actually happen; that is, the junction point might be Belmont, in Philadelphia. This Milton connection is utilized more particularly for freight originating on the Philadelphia and Reading Railway and going west.

By JUDGE CAMPBELL:

Q. Over their Philadelphia and Erie line? A. Yes, sir.

By MR. MCREYNOLDS:

Q. The Philadelphia and Reading Railway Company gets into Trenton, New Jersey? A. Yes, sir.

Q. And there it connects with the Pennsylvania lines, does it not? A. No, sir.

Q. Have you no physical connection there? A. No, there has been no physical connection. I think there is at the present time a physical connection which has just been completed, but up to the present time there has been no physical connection.

Q. How about Millham, just beyond Trenton? A. No, sir.

Q. Is there no physical connection between the Philadelphia and Reading tracks there and the Pennsylvania tracks? A. No, sir.

Q. Where are anthracite coals passing over the rails

of the Central Railroad of New Jersey from the coal regions delivered on New York harbor? A. Originating on the Central Railroad of New Jersey?

Q. Yes. A. Elizabethport, or Port Johnsons, or Jersey City; Communipaw, but I do not think they handle any coal through Communipaw.

Q. The general merchandise freight moving from Philadelphia to New York over the lines of the Philadelphia and Reading, how is that delivered to the consignees at Jersey City? A. Via the Central Railroad of New Jersey, if it is delivered at Jersey City.

Q. Suppose it is delivered on the New York side? A. They have their piers and terminals on the New York side.

Q. It is carried over there? A. By float, the same as any other road.

Q. Cars and all are put on the float and carried over? A. Yes, sir.

Q. Is most of the merchandise freight that is intended for New York, moving over the lines of the Philadelphia and Reading Railway, run on to floats and delivered on the New York side? A. Yes, sir.

Q. Is anthracite coal also sometimes delivered from Port Reading on floats alongside New York city? A. I never heard of it.

Q. There is nothing to prevent it from being done? A. Yes, there is at the present time.

Q. What? A. They have not had any float slip at Port Reading by which they could transfer the cars to water equipment.

Q. From Port Reading up to the lower end of Manhattan Island is about how far? A. I can only guess at it. It is about, I should say, ten miles.

Q. Does the Philadelphia and Reading Railway Company transport bituminous coal from the Beech Creek and Clearfield districts to tidewater? A. Yes, sir.

Q. At what point are such coals delivered to tide? A. It is delivered to the Central Railroad of New Jersey at Tamanend or Hauck's Switch and transferred by the Central Railroad of New Jersey from that point to tidewater.

By JUDGE CAMPBELL:

Q. Do you not want to follow that up by saying that we carry coal from that district by our own road to Port Reading? A. I do not know whether there is any bituminous coal originating on the Beech Creek that goes by our own road to Port Reading. I do not know that there is bituminous coal that goes to Port Reading coming from other sections.

Q. You do know, at all events, that there is bituminous coal from the Beech Creek, that is carried on our own rails to Port Richmond in Philadelphia? A. Yes, sir.

By MR. MCREYNOLDS:

Q. Where do those coals from the Beech Creek and Clearfield districts come on to the line of the Philadelphia and Reading? A. At Newberry Junction.

Q. What road delivers them to you at that point? A. New York Central.

Q. How far from Newberry Junction is it to the mines? A. I do not know. I should say the distance varies from fifty to a hundred miles.

Q. How far do you carry those coals over the lines of the Philadelphia and Reading road from Newberry Junction to Port Richmond in Philadelphia? A. Two hundred and four miles.

Q. What is the rate on those bituminous coals from the Beech Creek and Clearfield district? A. I do not know.

Q. It is quite possible to transport all that coal to New York harbor over the lines of the Philadelphia and Reading Railway without turning it over to the Central Railroad of New Jersey, is it not? A. I do not say that it is physically impossible. I think, however, that the question would be determined largely by the facilities which might be furnished at Port Reading.

Q. Do you know how far it is from the mines in the Clearfield region to New York harbor by way of Newberry Junction, Tamanend, and thence via the tracks of the Central Railroad of New Jersey? A. Approximately the distance from Newberry Junction to tidewater via Tamanend, in connection with the Central Railroad of New Jersey, is two hundred and forty miles. Assuming that the distance from the mines to Newberry Junction is fifty miles,

we should add fifty miles to that, and if it is a hundred miles, add a hundred.

Q. Do you know what the rate on bituminous along that line to tidewater is? A. No, sir; I do not.

Q. Do you interchange any anthracite coal traffic with the Central of New Jersey? A. Yes, sir.

Q. Where? A. At Allentown and at Tamaqua.

Q. When did you commence to do that? A. Indeed I could not say.

Q. Give us approximately the time. A. I should say that there has always—since 1894 that there has been a limited amount of coal interchanged with the Central Railroad of New Jersey.

By JUDGE CAMPBELL:

Q. Interchanged? Is that a good word? A. Delivered to the Central Railroad of New Jersey, destined to points on the Central of New Jersey, or more particularly, destined to points in New England.

By MR. MCREYNOLDS:

Q. Has that traffic increased? A. I could not say as to that.

JUDGE CAMPBELL:—I ask the Examiner to note an adjournment to a day to be named next week, as soon as I can get the attendance of Mr. Richards, of which prompt notice will be given to the Examiner and the counsel for the Government, and their convenience consulted.

Counsel for the Government state that they, of course, appreciate the reasons which lead Judge Campbell to ask an adjournment, but, in order that their attitude may appear upon the record, they state that they are ready to go ahead with the taking of evidence by any defendant who is prepared to proceed, either now or at any time between to-day and the day next week which Judge Campbell may intimate.

Judge Moot stated that, as they necessarily have to depend on counsel, outside of the record, as to the time they will take, and as a mine fire that Judge Campbell's witness is caring for has prevented the Reading from taking the full time this week, other counsel are not ready to go ahead.

Adjourned.

Met pursuant to notice Tuesday, May 18th, 1909, at 10.30 A. M., at the Post Office Building, Philadelphia.

Present—The Examiner. J. C. McReynolds, Esq., and G. Carroll Todd, Esq., for the Government. Hon. J. D. Campbell, representing the Philadelphia and Reading Railway Company and the Philadelphia and Reading Coal and Iron Company. Hon. Adelbert Moot, representing Hillside Coal and Iron Company; Erie Railroad Company; New York, Susquehanna and Western Railroad Company; New York, Susquehanna and Western Coal Company; and Clarence Coal Company.

WILLIAM J. RICHARDS, a witness called on behalf of the Philadelphia and Reading Coal and Iron Company, having been duly sworn, was examined and testified as follows:—

By JUDGE CAMPBELL:

Q. What is your profession? A. Mining engineer.

Q. Kindly give a brief general outline of your experience as a mining engineer. A. I went with the Reading Coal and Iron Company in their engineering department in 1882. I remained with them in that department until 1887. I was then one year with the Susquehanna Coal Company at Shamokin. In 1888 I returned to the Reading Coal and Iron Company and was with them until 1889 at Ashland, Schuylkill County. Then I went with the Lehigh and Wilkes-Barre Coal Company as mining engineer, and was with them until 1898 as mining and chief engineer. In 1898 I was made general superintendent of the Lehigh and Wilkes-Barre Coal Company, and held that position until 1903. In 1903 I became general manager of the Philadelphia and Reading Coal and Iron Company in charge of the mining department. In 1904 I was made second vice-president, and in 1907 I was made first vice-president of the Reading Coal and Iron Company.

Q. In charge in each instance of the mining department? A. Yes, sir; of the mining.

Q. Kindly give a brief general description of the several anthracite fields which have come under your observation and their special characteristics. A. I made a statement covering briefly my ideas on that. Shall I read that?

Q. I will ask you a few preliminary questions. I wish to call your attention to that Ruley map, which has been offered in evidence. You are familiar with it? A. Yes, sir.

Q. I understand this map to have been prepared under the direction of the Geological Survey? A. The Pennsylvania State Geological Survey.

Q. The nomenclature describing the various divisions differs somewhat from our trade names, does it not? A. Yes, sir. Generally under the Geological Survey the fields are known as the Northern, Eastern and Western Middle, and Southern, whereas we know it generally in the trade as the Wyoming, the Lehigh and the Schuylkill.

Q. The Wyoming Field, I take it, includes the Northern Field, so-called? A. The Wyoming includes the Northern Field.

Q. Which is in Luzerne and Lackawanna counties? A. Luzerne and Lackawanna counties.

Q. The Lehigh Field, as you know it in the trade, consists of what? A. The Lehigh Field consists of the territory adjacent to Hazleton.

Q. Apparently in the middle on the face of the map? A. Yes, sir. It is composed of a number of small basins there, and generally the eastern end of the extreme Southern Field is classified with the Lehigh Region.

Q. That part lying east of the Little Schuylkill River, I take it, the Panther Creek Region, and so forth? A. Yes, sir.

Q. Which is an extension of the Schuylkill Field? A. Yes, sir.

Q. I mean geographically, not geologically altogether. A. Yes.

Q. The regions in the northern part of Schuylkill county extending northwestward to Northumberland shown on this map are marked on the map as the "Western Middle" and "Eastern Middle?" A. Yes, sir.

Q. Now you may proceed, if you please, to place in the record such parts of the statement you say you have prepared as will express your understanding, possibly subject to some interruption to inquire for elaboration and detail. A. I have some remarks on the different fields. Do you want me to read that?

Q. Yes. I just simply wanted you to explain the difference of the terminology employed by the different witnesses. A. The region producing anthracite coal has a total area of about four hundred and eighty-four square miles. It is divided geologically and geographically into three fields. The first is known as the Northern or Wyoming Field. The Wyoming is a basin about sixty miles long and about six miles wide at its greatest distance across. The principal companies operating within it are the Delaware, Lackawanna and Western, Delaware and Hudson, Pennsylvania Coal Company, Lehigh and Wilkes-Barre Coal Company, Lehigh Valley and the Ontario and Western. Here the coal at the deepest point in the basin reaches a distance of two thousand three hundred feet below the surface. The second field or sub-division is the Lehigh. It is made up of a number of small basins of not very great depth. The measures are of varying inclinations, running from nearly flat to very steep pitches. The third field or sub-division is called the Southern or Schuylkill. The Schuylkill starts near Mauch Chunk on the east.

Q. That is on the Lehigh River? A. Yes, sir. The Schuylkill starts near Mauch Chunk on the east and is very much in the shape of the letter "A," with Mauch Chunk at the apex and Treverton and Lykens at the end of either leg. The Southern Field contains the greatest variety of coal, greater probably than all the other fields combined. It is from this field that the Lykens coals

come. That coal is produced on the western end of the Schuylkill Field and is a coal that is not bright but dull in lustre, and is a product of the veins lying geologically lowest in the whole series. That is, this Lykens coal is produced from those veins that are the lowest in the series. In what we call the Lykens region there are four veins producing this coal. The Lorberry, Schuylkill Red Ash, Free and Hard White Ash, Locust Mountain, Shamokin and Franklin coals are all produced in this region.

Q. Now, if you please, go on and describe the various processes of opening mines, the obstacles to be overcome and the purposes to be accomplished. A. The first study in preparation for the opening of a mine is the geology of the territory and the tract. In the bituminous fields of the eastern portions of the United States the coal lies horizontal, or nearly so. The veins are almost uniform as to texture, contents and quality; that is, a vein fairly proven can be depended upon to continue for reasonable distances to be of similar inclination, quality and thickness. In the anthracite field it is entirely different. Especially is it true of the Southern Field. The veins run from horizontal to vertical. I will just state that the remarks that I am making now are applying particularly to the Southern Field. In some cases the same vein in a comparative limited territory will have all these pitches; that is, starting at the horizontal, it passes on to the vertical. In thickness we have veins from one foot to fifty feet and over. At this time no veins one foot thick are being mined. The lower limit of profitable mining on a pitch where coal will run to the loading point is about three feet, while in flat workings, where the car must be taken to the working face, a profitable business cannot be one on much less than four feet. In vein contents we have the same range from veins that contain but few impurities to veins that contain a large proportion of refuse.

It can be readily understood that with the geological conditions described the production of seventy million tons of coal per year requires the most constant activity on the part of the producer to keep openings ahead sufficient to

produce and supply the needs of the market. Seventy million tons annually mean the exhaustion of seventy thousand foot acres of coal per year. It means the shipment of nearly three million railroad cars.

To open up a well equipped colliery will require almost five years of time and cost nearly or quite a million dollars. All this must be expended before a dollar of return can be expected.

To provide for this great output and to continue to provide for the future business the whole anthracite region is being constantly studied. Territory not fully explored is being searched over by the geologist and engineer. The area containing anthracite is fully known and its boundaries have been definitely determined.

Within this known area, however, are many tracts that have not been fully developed, and many of the veins in areas of considerable extent, especially in the Schuylkill region, have yet to be proven. The changeable character of many of these veins makes them a workable and desirable quantity in one locality, but absolutely worthless in other places, due either to a thinning of the veins or to a change in the texture, whereby rock or other worthless material crushes out the coal. The variableness of the veins is what makes the great commercial risk in mining, which is greater vastly than in the bituminous mining, or than offers in any other line of production. All this doubt and changeability means expense to the producer.

DEVELOPMENT.

The first problem is the development of the property. Before undertaking the work, investigations are made sufficient to determine the presence of coal of such quality and thickness as the experience of the operator leads him to believe will provide a tonnage in such quantities as will make the venture a reasonable one. The operator understands that he is dealing with veins that may change or that the hidden dangers inherent in the coal may bring disaster at any time. In most cases the best obtainable data can be but a guess of what the mining is actually to meet.

Veins that looked well at the outcrop or in the provings may have a changed appearance to the operator when fully opened by the gangways or after the product is exposed to the criticisms of a hard market.

In the Schuylkill Field we have a shaft sunk, and are mining coal at a depth of over eighteen hundred feet, and comparatively little coal is now left for the opening of new collieries or the making of new operations that will be secured at a less depth than one thousand feet.

The continuance of mining, exhausting, as is being done, the deposits by seventy million tons each year, will require that the deeper coals must be relied upon more and more, thus adding to the problems of roof support and protection of the passages. Heavier timbers, steel or masonry, will be required to provide for the safety of the employes and the mine. The greater depth finds greater quantities of gas given off, requiring larger quantities of air to dilute the gas and render the mine fit and safe for the workmen. There are mines now supplied with half a million cubic feet of air per minute to keep the passages safe and properly ventilated. As we go deeper in the earth, the veins are generally found to be more disturbed by the greater convulsions that took place when the coal and its encrusting materials were created.

Mining.

The operator having opened the coal now meets the problem of how best to make it workable; how to mine it with the greatest safety to his employes, and for the largest possible return for the investment already made in the project, as well as for the best production for the market. In these days of "conservation of resources" the operator is required to be mindful of the fact that he is taking from the ground something that cannot be reproduced, and that the ton of coal once mined is gone forever.

If the veins are fairly thick and free from refuse the operator has clear sailing. Thin veins or very thick veins, or veins containing considerable refuse introduces severe

conditions requiring other methods. Most frequently the operator meets the constantly changing conditions. A deadly enemy is the mine gas, always ready to take advantage of any mistakes on the part of the workmen. It is constantly dreaded, watched and must be provided against. Again, we have veins that are free and veins that are of solid texture. The treatment in each case must be that best suited for the particular condition.

TRANSPORTATION.

As the mine grows in extent the transportation of the product becomes a great problem. Formerly and still largely used is the mine mule as a source of motive power. But the demands of the times and the economic laws of the age require other surer and cheaper power, so he is now giving way to the electric and compressed air locomotive. To make air available the locomotives using that power have a capacity of storing it at a pressure exceeding, in some cases, one thousand pounds, so that it may be carried in the smallest bulk. The perfecting of electricity has been a great help to our transportation. In gaseous mines electricity cannot be used extensively because of the danger of ignition from it. The immensity of the transportation in our mines can best be made apparent when it is considered for a moment that the coal traffic, which apparently taxes the capacity of our great railroads with their great engines and their cars, originates in the mines, where it is transported through narrow passages, over narrow-gauge tracks, in small cars, averaging not over two and one-half tons each and by mules or locomotives that appear like toys when compared to the monster locomotives of the surface railroads.

PUMPING.

The extension of the workings and their connection with the surface and hidden springs brings into the mine vast quantities of water, which must be kept constantly pumped to the surface so as to free the mine. For no instant can it be neglected. The pumps must always be ready for con-

tinuous operation. There are periods of "heavy water" when every resource is strained; when the production of coal is suspended and all the steam-generating capacity of the colliery and all the pumps must operate on water alone. In times past collieries were abandoned because of inability to cope with the water in the mine. Of recent years pumps of greater power and capacity and of high efficiency are being installed, with the result that the water problem is being better handled.

At the mines of our company we are to-day pumping five hundred thousand tons of water, or nearly twelve tons of water for every ton of coal produced. The average lift is about seven hundred and fifty feet. This great problem can be appreciated when single pumps are now installed that have a capacity to lift three thousand gallons one thousand feet in height in a minute of time. Formerly steam pipes entered the mines through the slopes or shafts, but now separate bore holes are drilled into the mines that the steam may be taken into the mine with greater economy and safety.

MAINTENANCE.

As the gangways and passages of the mine extend, the maintenance becomes a most serious problem. Iron and masonry are being used for supports where practicable, but great dependence must still be placed on timber and wooden construction for the support of the sides and roof of the passage and traveling ways. There is a bending and elasticity about wooden beams that make them desirable material for use in mines where squeezing is liable to occur. The increasing cost of all wood products is a matter that all are familiar with.

For several years we have been carrying on a series of experiments to determine the lasting qualities of timber treated artificially with creosote, zinc chloride, or salt. Our experiments have progressed far enough to satisfy us that it is a good thing to do. We have just completed a plant to do this work on a large scale. By this means we hope

to break the force, in some measure, of an item of expense that is growing rapidly, due to the higher price of the article, as well as its greater consumption, due to the deeper mining.

PREPARATION.

The veins of coal as they were created in the earth are interstratified with layers of bone and slate. In the mining every effort is made to remove the impurities. To supplement this, great buildings called breakers are a part of the equipment of every mine. The product coming from the mine is dumped into the breaker, where it is put through a rigid system of examination, cleaning and screening, with the end that all objectionable matter may be eliminated, and that each particle of coal may be placed in the class to which its size entitles it. At times certain of the larger sizes cannot be marketed. At such periods the large coals are broken by rolls into the smaller and, for the time being, salable sizes.

The demand for so many sizes is another great tax on the producer, as in the course of preparation a great deal of breakage and wastage occurs. The sizes that must bear the burden of cost are what are known as prepared sizes. Anthracite coal is now being prepared in twelve sizes, the steam coals being up to this time regarded as a by-product and being sold for less than cost.

The market demanding extreme preparation can work great loss to the producer and will result in limiting the output and ultimate quantity of coal fit for market.

All coals do not have the shiny lustre. Many of the best coals are dull and dark. Many times have superior coals been condemned because of their looks, when an unprejudiced trial would have shown that a splendid article was being rejected.

Q. I wish you would give some description of the general character and quality of the several grades of anthracite coal in the territory operated by the Reading Coal and Iron Company, and the locations of the lands

from which they are derived. Geologically, I understand that there is a progressive change in the quality and characteristics of the coal lying in the western end as you pass to the eastward, and still more as you come finally toward the end of the lower Lehigh region called Mauch Chunk. A. Starting at the western end of the Southern Field, or the Southern prong of the "A", we have the Lykens coals. They are produced from the four veins lowest geologically in the measures. Passing to the east we have the White Ash. The White Ash measures are the measures next above the four veins that I have spoken of. Coming to the east, the next grade of coal we have is the Lorberry. This is a free burning and soft coal. I do not mean to say soft in the understanding of bituminous coal, but soft from an anthracite standpoint. Then, as we pass still further east we strike what are known as the free burning White Ash measures. Those free burning White Ash measures extend from the neighborhood of Branchdale through to Silver Creek, which is almost to Tamaqua. Then, passing on still further in the neighborhood of Tamaqua and east of that we come to the hard White Ash measures. I might add that in the neighborhood of Minersville we are mining what is called the Schuylkill Red Ash. The Schuylkill Red Ash coal is the coal mined from the upper veins. The Schuylkill Red Ash is the product from the upper veins, geologically, and the veins underneath the Schuylkill Red Ash are White Ash. Then, passing through Mahanoy City we have the hard White Ash measures.

Q. You are going to the westward on the Northern leg? A. Traveling to the westward on the Northern leg. These are White Ash measures extending to the vicinity of Ashland. From Ashland to Mount Carmel we have again the free burning White Ash measures, corresponding to the same coals in the Southern Schuylkill. As we travel to Shamokin, we have the Shamokin coal, which is White Ash again. Traveling on to Trevorton, at the extreme end of the Northern leg, we have the Franklin

coals, which is an extremely soft coal for anthracite, and free burning.

Q. You began in the Lykens Field by stating that the coal consists of the four veins lying lowest geologically. As you came eastward you did not compare the upper or workable veins in the various other regions. Will you mention that, because we want to avoid coming back to it? A. I do not know that we could sum it up in the number of veins. We have territories where certain veins are workable, and passing on a short distance those same veins become worthless, so that there is no way that I know that we could sum it up in the number of veins. I might also add that in these four Lykens veins I referred to, they are worked at Lincoln colliery. Over at Brookside there are only two, and when you get to Good Spring there is only one there that is workable.

Q. To conduct the operations of the Philadelphia and Reading Coal and Iron Company I will thank you to give us some idea of the extent of the operating staff of officers and employees, including mining engineers, electrical engineers, mechanical engineers, and other professional men, and also including the clerks at the collieries. That is, excluding the men working in the mines or in the breakers. A. This statement was made off of our roll. In our Engineering Department we have a staff of ninety-eight men; that is, including our engineers and men of various grades in our engineering department. In our Mining Department: Superintendents, heads of our building departments, coal inspectors, heads of our machinery departments, and clerks in that department, we have one hundred and seventeen. That includes men of all grades, all the way down, including everybody. In our supply department we have thirty-one. In our machinery department, which is made up of our shops, we have thirty men. The land department, we have thirty men. In our paymaster's department we have thirty-two men. At the collieries we have one hundred and eighty-nine clerks.

Q. None of those numbers include the operatives, so-called—for instance, those in the shops? A. No, sir.

Q. I would like to have you give us the elements of the cost of producing anthracite coal and placing it in the cars at the breakers in a period from November, 1900, to May, 1902; November, 1902 to March, 1903; and from March, 1903 to February, 1909, inclusive in each case, beginning with the cost of labor, properly so-called. I distinguish these various periods for this reason, that the period beginning November, 1900, to May, 1902, inclusive, covers the labor cost which resulted from the advance in wages following the strike of 1900; the period beginning November, 1902, to March, 1903, will disclose the cost as resulting from the advance of ten per cent. in wages which became effective November, 1902, as the result of the award of the Anthracite Strike Commission; the period from April, 1903, to February, 1909, covers the additional labor cost resulting from other features of the award of the Anthracite Strike Commission. A. From November, 1900, to May, 1902, the average per ton was one dollar and thirty-five cents, average labor cost; from November, 1902, to March, 1903, $1.45.9; from April, 1903, to February, 1909, $1.57.4.

Q. What was the average labor cost immediately prior to November, 1900, before that advance went into effect? A. For the year prior it was about one dollar and thirteen cents or one dollar and fourteen cents.

Q. The advance, then, amounted to about sixteen per cent. in miners' wages—the increase. A. On November 1st, 1900, there was an increase of sixteen per cent. There had been a strike prior to that time, and this was a settlement of the strike. The strike was settled with an award of ten per cent.—not an award, but an agreement; an agreement of ten per cent.

Q. An agreement to advance wages? A. Yes, sir. The strike started in the middle of September 1900. Approaching that strike the price of coal increased.

Q. Had advanced? A. Yes, sir; due to the coming strike.

Q. You mean the demand from the markets in fear of the strike? A. Yes, sir. At that time, or prior to that strike, the collieries of the Reading Coal and Iron Company were operating on a sliding scale, by which the men shared in any rise or fall in the price of coal below a certain point. Due to the rise of coal early in September and the latter part of August, the men received an advance of six per cent., so that when the strike was settled the ten per cent. in the Schuylkill Field was added to the six per cent., making an increase in the Schuylkill Field of sixteen per cent. This sixteen per cent. is figured in these statements for this period from November 1900, which was the end of the first strike to May 1902, which was the beginning of the second strike.

Q. After the strike of 1902 the men went to work on the first of November? A. Yes, sir.

Q. After an agreement had been entered into on the suggestion of the President for the establishment of a Board of Arbitration? A. Yes, sir.

Q. After the award was made there was a straight advance in wages of ten per cent., which became effective the day the men returned to work, November 1st, 1902. Is that the correct statement, or substantially? A. It is, in part. The men went to work November 1st, 1902, with the understanding that the whole matter of wages and other questions of dispute were to be settled by the Strike Commission. The Strike Commission sat during the Winter, and finally rendered their decision sometime prior to April, 1903. That awarded the contract miners an increase of ten per cent. in wages; it awarded the company men—nine hours to be a day's work—the company men are the men that are working by the day. Up to that time the day in the anthracite region had been ten hours. Their award was that they were to have a day of nine hours without any reduction in pay. Then, in addition to that, there was an award on a sliding scale. That is, the wages of the men—the wages of all the employees—were to increase one per cent. for every five cents that the average price of coal would increase above four dollars and fifty cents

at tide, the price to be considered being on the sizes above Pea coal. In addition to that, certain other increases were given. For instance, firemen—the men firing the boilers—were granted an eight-hour day at the same wages. They had previous to that time two shifts, and the fireman covered the twenty-four hours. At this time the firemen were awarded an eight-hour day, making three shifts of firemen without any loss of pay. Then, there were certain concessions granted to hoisting engineers, who were employed the twenty-four hours. They were given an eight-hour day. And other engineers who were employed continuously each day were given Sunday off without loss of pay, the companies being required to employ an extra man to take care of the Sunday shift. Then, there were certain other minor concessions given.

Q. So that the general result of all these various advances, beginning November, 1900, and then continuing until the present time, was an increase of the cost of production for wages alone of forty-three cents a ton? A. That is the present increase, and the increase since the 1902 strike, forty-three cents for labor. That, of course, embraces the sum total of all the increases. That is the aggregate since the 1900 strike.

Q. That is for labor alone? A. Yes, sir.

Q. I would like to have you now take up for comparative purposes the conditions of labor cost, earnings of the men, and so forth, for the two comparative years of 1898 and 1908. I select these years because the year ending June 30th, 1898, is the first full fiscal year after the Coal and Iron Company resumed the operations of its business upon the surrender on the first of December, 1896, by the Receivers, and 1908 as the last full fiscal year for which our details have been collected. A. I would just state that we have reduced the day. Of course, as I stated before, after 1902 the day of the company men was nine hours. Prior to the 1902 award the day was ten hours. We have reduced the day to ten hours. We made the day on the basis of a ten-hour day so as to equate that

equally. In 1898 the average earning per day of the men working our mines was one dollar and sixty-seven cents; in 1908 it was two dollars and twenty-eight and eight-tenths cents, or an increase of sixty-one per cent. per day, or per ten hours. So as to make it absolutely clear, I will make it per ten hours. Of course, in the anthracite regions we speak now of a day, which means nine hours, but this comparison is made on the basis of ten hours. I might just say that the net earnings of all our men in 1898 was $8,164,836.76. In 1908 it was $15,785,527.67.

Q. An increase of —— A. It is nearly double.

Q. Can you give us briefly the difference in cost of producing coal between the year 1898 and the year 1908? What was the difference in the total cost of producing coal in 1898 and the cost in 1908? A. In 1898 the average cost of coal was one dollar and eighty-two and seven-tenths cents.

Q. At the breaker? A. At the breaker. In 1908 the cost was two dollars and fourteen and six-tenths cents.

By MR. MCREYNOLDS:—

Q. Thirty-two cents difference? A. Thirty-two cents, yes. I might just add, that the cost to produce in 1900 was one dollar and sixty-seven cents.

By JUDGE CAMPBELL:—

Q. That is for the year 1900, before the strike? A. When I say 1900, that means the year prior to July 1st, 1900.

Q. The year ending June 30th of each year? A. Yes. They are not the calendar years; they are the fiscal years.

Q. Do these costs that you were taking up include labor, supplies, royalties, improvements, and so forth? A. Yes, sir; they include labor, supplies, royalty and improvements and general expenses. That is, just the costs I have given now. The labor cost that I gave originally was simply the labor cost at the collieries, men to load the coal at the collieries.

Q. Referring to royalties. Are there any royalties included in these statements of cost on coal mined in the company's lands operated by itself? A. No, sir.

Q. And it only includes royalties which are actually paid? A. Yes, sir. It includes royalties in subsidiary companies that we own.

Q. The company has to pay those royalties to those subsidiary companies, because they have outside stockholders, but the royalties that are included in your statement are confined to the royalties that are actually paid to lessors? A. Yes, sir.

Q. And do not include any royalties, or anything that represents a royalty, on the coal mined by the company from its own land? A. No.

Q. Suppose you give us the average total cost of mining for each year from 1898 to 1908, inclusive? A. In 1898, $1.82.7, 1899, $1.58.7.

Q. How do you account for the marked difference between those two years? A. In 1899 the wages were five and nineteen-twenty-fourths per cent. below the two dollar and fifty cent basis. In Schuylkill region we were working on a sliding scale, and the basis of payment for wages was two dollars and fifty cents at Port Carbon. There was a fixed rate. During that year the rate of compensation was below that basis, due to the receipts for coal, and it was five and nineteen-twenty-fourths per cent. in 1899 below that basis.

Q. That does not wholly account for the discrepancy, does it? A. In 1900, one dollar and sixty-seven cents. In that year the sliding scale worked over or above the basis four-sevenths per cent. Then, in that year, in October, during the strike, that sliding scale was suspended by the agreement. In 1901 the cost was one dollar and eighty-two cents and six mills; 1902, two dollars and six cents and six mills; in 1903, two dollars and nineteen cents and six mills.

Q. Those three years you have last read show the results of those advances, do they not, to which you referred in a previóus answer? A. Yes, sir. In 1904, $2.22.6; in 1905, $2.19.2; in 1906, $2,15.3; in 1907, $2.16.8; in 1908, $2.14.6.

Q. While you are at this point, I would like you to

give us the production during each of these several years showing the growth of the production. A. Do you mean the tonnage?

Q. The tonnage, yes? A. In 1898, the tonnage was six million six hundred and eighty-one thousand six hundred tons. In 1899, seven million one hundred and fifty-six thousand seven hundred and thirty-four tons.

Q. Did that advance of about five hundred thousand tons in tonnage tend to reduce the average total cost per ton? A. It all helps.

Q. That is one of the elements. A. Yes, sir. In 1900, eight million thirty-one thousand nine hundred and fifty-one. In 1901, eight million sixteen thousand nine hundred and thirty-five; in 1902, six million nine hundred and sixty-eight thousand five hundred and sixty-six.

Q. Why that decrease in tonnage in 1902 and 1903? A. The strike of 1902 started in May and continued over June, 1902. The end of our fiscal year was July 1st. It extended over until November, so that it came into both years.

Q. And that falling off in tonnage in the year 1902 was due to this strike? A. Well, yes, partly. I do not know that it was entirely due, but due in part to that. In 1903 it was six million two hundred and ninety-nine thousand four hundred and forty-nine.

Q. That falling off in tonnage was also, in a measure, due to the strike? A. Yes, sir; that was due to the strike. The mining that year was as brisk as it could be done. In 1904, eight million seven hundred and seven thousand five hundred and eight; 1905, nine million four hundred and thirty-eight thousand six hundred and sixty-five; 1906, nine million one hundred and fifty-two thousand three hundred and fifty-three; 1907, ten million fifty-four thousand seven hundred and thirteen; 1908, ten million two hundred and eighteen thousand three hundred and ninety-two.

Q. I take it the variations on cost of production were affected by other considerations, such as water condi-

tions, floods, fires, storms, breakages of machinery, and other extraordinary matters? A. They all add to it.

Q. Will you be good enough to give us some general description of these various accidental and extraordinary experiences which confront your operations? A. We are unfortunate enough at various times to have fires take place in the mines. Also, during very wet seasons we have an unusual quantity of water which finds its way into the mines.

Q. I suppose you meet sometimes also with the contrary conditions of droughts? A. We had last Fall in our region a very extended drought that lasted in the various parts of the territory for several months, and duing that time we were compelled to haul water for boiler purposes, and I think during that period we hauled something like about one hundred and twenty million gallons of water on railroad trains.

Q. You are speaking now of fires and floods. Your machinery breaks down sometimes? A. Those are things that we try to guard against. Of course, we have breakdowns in machinery that suspend collieries, and compel us to go to the expense of renewing and also to a loss of operation.

Q. All these various elements, and perhaps others, tend to make variations periodically in the cost of production? A. Yes, sir. As we are free from them they are to our advantage, and of course as we have them they add to the cost.

Q. There is another element that you alluded to in a very general way in the preliminary statement, but I do not know whether it was done specifically or not. You have squeezes in your coal measures? A. Yes, sir.

Q. Which require additional drifting and clearing away? A. Yes, sir. We have places where the measures squeeze, where the gangways have to be reopened or where they have to be heavily timbered to protect ourselves from them.

Q. All these things, I take it, go into the variations from time to time in the mining cost? A. Yes, sir.

Q. And, therefore, there cannot be any absolute proportional statement of cost that will be persistent and continued right along? A. No, sir. There are always things that will make it irregular. Of course, we try to meet those as best we can.

Q. You referred some time since to the transportation of coal by mules, and so forth, and the way you left that seemed to include only the transportation under the ground. You do not include, of course, any railroad transportation from the collieries, from the breaker? A. No, sir. We are done with the coal the minute we load it on the cars.

Q. But you do have superficial transportation on the surface from the openings to the breakers? A. Yes, sir.

Q. Give us some illustrations of the extent of some of

Q. On the surface? A. On the surface. We have one colliery that we haul the coal three miles.

Q. On the surface? A. On the surface. We have other collieries where we haul it a mile, and we have some where it runs a thousand feet.

Q. Continuing the consideration of the increased cost of producing coal from 1898 to 1908, I would thank you to refer to the subject of materials and supplies, and give us some special illustrations of advances of consequence. A. I had taken off the increase in the cost of certain articles we purchased. Rails in 1898 were nineteen dollars a ton; in 1908, twenty-six dollars and thirty cents. Sheet iron advanced from one dollar and ten cents to one dollar and eighty-five cents.

Q. What are the percentages of those increases? A. The increase on rails is thirty-eight per cent. The increase on sheet iron is sixty-eight per cent. Corrugated iron we bought for one dollar and sixty-five cents per hundredweight in 1898. In 1908, two dollars and forty cents. A total of forty-five per cent. increase. Mules cost us $112.50 in 1898; cost $207 in 1908.

Q. How many mules do you use? A. We have about two thousand five hundred mules.

Q. That was an increase of how much? A. Eighty-four per cent. in the price of mules. Understand, we do not buy two thousand five hundred mules annually; that is the total we have, two thousand five hundred. We buy about two hundred mules a year. Hay cost us nine dollars and ten cents in 1898 and fifteen dollars and sixty-five cents in 1908, an increase of seventy-two per cent. Corn cost us thirty-eight and a half cents in 1898; seventy-nine cents in 1908, an increase of one hundred and five per cent. Oats cost us thirty-two cents in 1898 and fifty-eight and a half cents in 1908, an increase of eighty-two per cent. Southern yellow pine, 12x12, cost us sixteen dollars in 1898 and thirty-one dollars and fifty cents in 1908; an increase of ninety-six and nine-tenths per cent. Hemlock cost us six dollars and thirty-five cents in 1898; twelve dollars and fifty cents in 1908. Round timber increased about fifty per cent. Round timber is the timber we use for props in the mines.

Q. Large quantities of these things you use? A. Yes, The round timber proposition is one of our heaviest expenses in the Schuylkill Field. Our bills aggregate about $100,000 a month, for round timber. Pig iron was eleven dollars and thirty cents in 1898; eighteen dollars and forty-five cents in 1908, an increase of sixty-three per cent. Copper, ten dollars and seventy-seven cents in 1898, thirteen dollars and sixty-three cents in 1908; a total of twenty-six per cent. increase. Four-inch pipe increased from sixteen dollars and twenty-four cents to thirty-three dollars and sixty-nine cents, or one hundred and seven per cent. White oak car lumber, from twenty dollars and seventy-six cents to twenty-seven dollars; thirty per cent. increase. Bar iron per pound from one cent and an eighth to one cent and eighty-five one-hundreths cents; and advance of sixty-four per cent. Steel boiler plate from one and forty-seven one-hundredths cents to one and nine-tenths cents; an increase of thirty-two per cent. In our manufactured articles, castings increased from one and twenty-two one-hundredths cents

to two and eight-tenths cents, an increase of seventy per cent. Composition metal castings, from nine and a half cents to fourteen and thirty-six one-hundredths cents; an increase of fifty-one and six tenths per cent.

Q. Are there other items that occur to you as of especial importance? A. I think those are representative.

Q. Of the general increase of materials and supplies connected with the mining operations? A. Yes.

Q. These costs of production are based upon the entire tonnage, including the smaller sizes? A. Yes, sir, the total tonnage.

Q. Both in respect of wages, materials, supplies and all the other items? A. Yes, sir.

Q. I wish you would give some description, in general terms, of the cost of protecting the safety of the mines and of employes, ventilation and the like. A. I do not know how I could differentiate that.

Q. We have statutes in Pennsylvania, have we not, which require certain methods of protection? A. We have a mine law that the mines have got to be operated in accordance with. We are so used to doing that that we do not differentiate it in money any more. We expect to do that.

Q. Do you know whether or not, in all your experience, the Coal and Iron Company's operations have been rather in advance than merely in obedience to the provisions of these statutes? A. We try to do everything we can to provide for the safety of the men, whether it is in the law or not.

Q. You anticipate the provisions of the statutes then, in some instances, I take it? A. We try to do that, yes, sir.

Q. The fact of the matter is, the previsions which have been made by the Coal and Iron Company in conducting its operations have been used as a basis by the legislators in requiring other people to do the like; is not that so? A. I would not like to say that. I would not like to testify to that

Q. Why would you not like to say it? Do you not know that to be a fact? A. It would look like presumption on my part to say so.

Q. If you do not know it, of course you should not say so. During the administration of your predecessors, then, who were responsible for it, do you not recall that such things did occur? A. Generally supposed to have, yes, sir.

Q. It is true as a fact, then, that the legislation has rather followed the Coal and Iron Company's defensive operations than that the Coal and Iron Company have followed the statute? May I draw that inference? A. Well, you can.

Q. Have you had occasion to confer with the representatives of foreign governments on tours of inspection through our region on the subject of protection against mine gases and the like defensive measures? A. We had a visit from the representatives of Belgium and Germany, on their recent visit to the United States, in one of our mines.

Q. Did they offer or express any opinion as to the means employed by the Coal and Iron Company to protect the property and personnel of the employes? A. They expressed great satisfaction at what was being done, and had nothing to suggest.

Q. We can assume I take it, that these provisions were expensive? A. They all cost money.

Q. May I ask you whether this preliminary statement which we have had put on the record is the result of a public address that you delivered some time since? A. Yes, sir.

Q. What is the proportion of your production due to the present methods of preparation for the market, of prepared sizes, as compared with the smaller sizes? A. The average last year, I think, was fifty five or fifty six per cent. of prepared sizes, and the balance, forty-four or forty-five, small sizes. I have forgotten the exact figures; it was in that neighborhood.

Cross examination.

By MR. MCREYNOLDS:

Q. What is the relative cost of the production of anthracite coals in the Schuylkill Region as compared with the cost of production in the Lehigh Region and the Wyoming Region? A. I would not have that.

Q. You may not be able to give it to us in definite figures, but relatively which is the highest of those regions? A. The Schuylkill Region is the highest. The average of the Schuylkill would be higher than the average of the others. Of course, that is only a matter of opinion; I am not giving that as a fact.

Q. You were once connected with the Lehigh and Wilkes-Barre Coal Company? A. Yes, sir.

Q. You are acquainted with the cost of production there? A. Yes, sir.

Q. The mines of that company are situated in the Lehigh Region? A. There are some collieries in the Lehigh Region and the balance in the Wyoming.

Q. How about the relative cost of the mines of that company, located in the Lehigh Region, and the mines located in the Schuylkill Region, in the cost of production? A. I would just state that I left there about the time that these big advances in wages were taking place.

Q. It is the general understanding in the trade, is it not, that the Schuylkill Region is the most expensive region for mining? A. Yes, sir; but I want to give that, qualifying it, of course, as just an opinion.

Q. When you first became connected with the Philadelphia and Reading Coal and Iron Company, the sizes below Pea were waste products, were they not? A. They were shipping some Buckwheat in 1882.

Q. But very little? A. I hardly remember just exactly what they were shipping, but I do not think they were wasting very much of the Buckwheat at that time.

Q. Much of the coal that is now marketable and a valuable product, was then a by-product and thrown out on the culm banks, was it not? A. Only the very small sizes.

Q. What proportion was that of the total production, do you think? A. I should say that probably ten per cent of what we are shipping now was then wasted.

Q. You were connected with the Lehigh and Wilkes-Barre Coal Company from 1898 to 1903? A. 1889.

Q. 1889 to 1903? A. Yes.

Q. At that time the Coal Company was owned by the New Jersey Central Railroad Company? A. No, sir; it was a separate company.

Q. But its stock was owned by the New Jersey Central Railroad Company? I do not know anything about the stock.

Q. Over what lines were its coals shipped to market? A. Over the Jersey Central.

Q. Where did they go? A. Where did the coal go?

Q. Yes. A. It was distributed all over the line and went down to tide.

Q. At New York? A. Yes.

Q. Did you have to do with the selling of the coal? A. No, sir.

Q. How were the coals sold? A. I do not know anything about that. All I had to do with was putting the coal on the cars.

Q. Did they have an agency in New York? A. Yes, sir.

Q. And in other States outside of Pennsylvania, for the selling of their coal? A. They had an agency in New York.

Q. Were the coals shipped upon orders from New York and other points outside? A. That I had nothing to do with.

Q. But I am asking; did you not put them on cars? A. Yes, sir.

Q. Did you have nothing to do with shipping them? A. We got our orders from New York and our shipper shipped them.

Q. So the coals were put on the cars by you and moved to New York upon orders from your New York selling agency? A. Yes, sir.

Q. Did you sell a large amount of that coal in New York City during the time you were there? A. I would not like tc testify anything as to quantities, or where it was sold.

Q. Give me an idea. Did you sell a million tons a year, something like that, in New York harbor? A. I would not like to testify to that at all, as to quantities.

JUDGE CAMPBELL:—I think I ought to preserve an objection on the record, in the absence of counsel for the New Jersey Central Railroad and the Lehigh and Wilkes-Barre Coal Company to this course of examination, as not being at all a proper cross-examination of this witness.

By MR. MCREYNOLDS:

Q. Where were the coals of the Philadelphia and Reading Coal and Iron Company sold prior to 1900, while you were connected with the company? A. I would not know anything about it at that time.

Q. Where were they shipped to? A. I was in the engineering department at that time and paid no attention to the shipments.

Q. Do you know where they go now? A. I pay no attention to that part of it at all. I simply put the coal in the cars and there my duty ends.

Q. But you know where the cars are consigned? A. I do not know that I ever saw the consignment of any car, the actual consignment of any car.

Q. Do you know the present price of anthracite coal? A. I know the price that is named on that statement. (Indicating.) That average price is furnished me on that statement.

Q. That is all you know? A. Yes, sir.

Q. Do you know how much the price of prepared sizes of coal in the market has advanced since 1898? A. No, sir.

Q. Do you not know that it has advanced a dollar a ton? A. Generally I have that knowledge; but I have no specific knowledge.

Q. The price of the market on prepared sizes has advanced a dollar a ton, according to this statement, and

the average cost of production from one dollar and eighty-two cents, in round figures, to two dollars and fourteen cents, or thirty-two cents a ton on all sizes; is that right? A. That is from 1898?

Q. Yes. A. Of course, you go to 1900 and you find it is a different figure. I will just state that the one dollar a ton you refer to is on prepared sizes, and it is only on certain portions of prepared sizes.

By JUDGE CAMPBELL:

Q. That is, domestic sizes? A. Domestic sizes.

By MR. MCREYNOLDS:

Q. The other sizes have also advanced, have they not? A. There has been some advance in them all. It is all summed up by the figures that are given there in that column.

Q. What are your duties, exactly, as Vice-President of the Philadelphia and Reading Coal and Iron Company? A. I have charge of the operation of the mines.

By JUDGE CAMPBELL:

Q. Development also, of course, of new mines and operations, and extension and enlargement of the workings? A. Yes, sir.

By MR. MCREYNOLDS:

Q. Let us come at this matter in another way. You have said that it appears here somewhere, from figures that you have, that the profit in mining for the year 1898 was four cents a ton; is that right? A. That is what the statement shows. I do not know whether I said it or not.

Q. The profit for mining in 1908 is twenty-one cents a ton, and the difference between those two is how much per ton? A. Seventeen cents.

Q. Now, how much would that make in the net value of the mining operations, upon the value of the output for 1908? It would be something more than $1,700,000, would it not? A. It would be about $1,700,000.

Q. Can you tell us what proportion of the output of the mines in 1898 consisted of sizes smaller than prepared? A. I cannot tell you, but I could get it for you if you wanted to have it.

Q. I thought you might have it in mind. A. No, I haven't it just in mind. I think that is in the records. From my own knowledge, the prepared sizes were greater in 1898 than they were in 1908—the proportion, I mean, was greater.

Re-direct examination.

By JUDGE CAMPBELL:

Q. You spoke of the salvage of the small sizes of coal in your early experience. Going back to 1882 in the operations of the Coal and Iron Company, do you recall that at an early date the mechanical engineers of the Philadelphia and Reading Railroad Company had devised a firebox and boiler system which enabled that company to consume your small sizes of coal? A. I remember the Wooten firebox.

Q. Which has been in use a great many years? A. Yes, sir.

Q. And the Philadelphia and Reading Railroad Company consumed large quantities of these otherwise rejected sizes of coal? A. I presume they did, from my general knowledge, but I would not know that from any actual knowledge I had of it.

Q. As an actual fact, you do know that they used them? A. Yes, sir, I know they used the Wooten firebox.

Q. And you know they had a great many locomotive engines on the Philadelphia and Reading Railroad system? A. Yes, sir.

Q. And that the annual consumption of anthracite coal during that period was a very considerable item? A. I presume it was.

Regarding the last question I put to you, referring to the proportion of prepared sizes and smaller sizes, in respect of which you answered, as to the present conditions, stating that the proportions were about fifty-five and forty-five per cent.; you answered the gentleman that the proportions of prepared sizes were much greater relatively in 1898. Is or is not that difference the in-

crease of the smaller sizes and the decrease of the proportion of larger sizes, due to the more exacting preparation now required by the markets? A. Yes, sir, it is partly due to that. It is due to getting deeper coals, where they are more crushed, and a number of factors enter into that.

Q. The requirements of the market now demand the breaking down of more of the larger sizes than they did at that time? A. Yes, sir.

Q. There was a large consumption of large sizes of coal in times past by steamers and other furnaces and other industries, which have been since that time reduced by the use of bituminous coals; has not that been so? A. There is something of that kind going on all the time.

Q. I call your attention to a print of a map lying in front of you, having this legend: "Map of a Portion of the Philadelphia and Reading Railway in the Anthracite Coal Region, Pennsylvania; showing Location of Collieries tributary thereto, together with Yards, Weigh Scales, Reservoirs and Water Stations," etc., revised by yourself January 1st, 1908. A. I revised that as to the collieries and colliery locations.

Q. In respect of the railroad, you are familiar with it? A. Yes, sir.

Q. Is it correct? A. Yes, sir.

(Judge Campbell offered the print in evidence as Reading Exhibit No. 3 and requested the Examiner to file it with his report. Also a photographic reproduction of this print, which counsel have consented shall be bound in the record. Marked "Reading Exhibit No. 4, May 18, 1909.")

JUDGE CAMPBELL:—I have in mind to call another mining engineer from the Schuylkill Region, Mr. A. J. Womelsdorf, who was prepared to accommodate us to-day but has had a sudden call to the South, on account of the extreme illness of his wife; I reserve the privilege of calling him on some other convenient occasion, though I will not undertake to ask the postponement of the closing testimony on his account.

1.30 P. M.

Present—The Examiner. Messrs. McReynolds, Todd, Campbell, Moot.

THEODORE VOORHEES, a witness called on behalf of Philadelphia and Reading Railway Company, having been duly sworn, was examined as follows:—

By JUDGE CAMPBELL:

Q. You are at present the Vice-President of the Philadelphia and Reading Railway Company and of various affiliated and associated corporations, railroad companies? A. I am.

Q. I propose to address your attention to the subject of cost and expense of conducting transportation on railroads, and, leading up to that, I wish to inquire of your previous experiences before coming into the service of the Philadelphia and Reading Railway Company. A. I entered the service of the Delaware, Lackawanna and Western Railroad Company on the fifteenth of July, 1869. I served with that company as an engineer and as a superintendent of one of its branch lines, and part of the time in the Coal Department of that company, for approximately five years. I then entered the service of the Delaware and Hudson Canal Company, and was in charge, as superintendent of the Saratoga Road, for nearly eleven years. In October, 1885, I entered the service of the New York Central and Hudson River Railroad Company, as assistant general superintendent, and in 1890 I became general superintendent of that company. I came to the Philadelphia and Reading Railroad Company, as it was called in those days, the 1st of February, 1893.

Q. During all these previous experiences, it became your duty to have knowledge of the cost of conducting transportation and all that that implies, I take it? A. I have been an operating officer all that time, yes, sir.

Q. When you came to the Philadelphia and Reading Railroad Company in 1893 you were elected or appointed First Vice-President? A. Yes, sir.

Q. And were placed in charge of conducting transportation? A. Yes, sir.

Q. You continued in the service of the Receivers during their receivership? A. Yes, sir.

Q. Which continued from some time in February, 1893, until December 1st, 1896? A. I believe so.

Q. In substantially the same sort of service? A. Yes, sir.

Q. With the same duties for the Receivers that you were placed in charge of for the company when you came into its service? A. Yes, sir.

Q. At the termination of the receivership, or rather of a surrender by the Receivers to the new Philadephia and Reading Railway Company, you were placed in charge of the same duties in behalf of the new company? A. Yes, sir.

Q. In the meantime, on the organization of the corporation, you were elected to an office with the title of First Vice-President? A. First Vice-President.

Q. And in the service of the Philadelphia and Reading Railway Company you continued your duties under that title until a recent period, when you became Vice-President *eo nomine*, there being no second? A. Yes, sir.

Q. With these preliminary questions, I beg to inquire whether you were acquainted with the elements that enter into the cost of conducting transportation at the beginning of the operations of the new company, the Philadelphia and Reading Railway Company, and during the intervening period up to this time? A. Yes, sir.

Q. What are the elements of expense that go into the conducting of transportation? I mean to inquire what field it covers. A. The chief items, of course, are the amounts paid for labor and the amounts paid for materials. There are very many minor items, but those are the chief items that enter into the cost of conducting transportation.

Q. Acquisition of equipment? A. Yes; that might be included.

Q. Repair and renewal of equipment? A. That means labor and materials.

Q. Any other items of detail? A. There are, of course, other items entering into the accounts, all of which ultimately enter into the cost of conducting transportation; but it would not come under my particular jurisdiction—the question of taxes and such other items.

Q. I would like you to state what progress of increase in the cost of conducting transportation, as you describe it, has been in your experience since the new company went into operation in December, 1896, up to the present time. A. There have been considerable increases in the cost of labor, prices paid for common labor and skilled labor. We made a general increase in wages on the 1st of November, 1902, of ten per cent. to all men who were receiving less than $200 per month. That was followed by a similar general increase in precisely the same terms on the 1st of November, 1906. Each of those increases added very largely to our pay rolls; I believe something about a million dollars a year.

Q. Each? A. Each. There have been also increases in pay to other employees that were not covered by these ten per cent. increases. I have some data in regard to the details, if you care to introduce them.

Q. Please refer to them? A. The increase of November the 1st, 1902, approximately increased the pay rolls $1,184,819. These are approximate figures that have been prepared; I presume they are correct. The increase of November 1st, 1906, brought about an increase of approximately $1,674,598 per annum. Our shop forces were granted an increase, on the 1st of April, 1899, of approximately ten per cent., or about $84,000 per annum. There were a series of increases made to agents, yardmasters, operators and so on, running through the period from 1899 to 1908, making an increase in all of about $167,000, for the total period. Our shop forces have also had various increases running about nine per cent.

Q. Materials and supplies? A. The cost of equipment

has increased very considerably in the last ten or twelve years. In the year ending June 30th, 1898, we purchased wooden box cars for $550 apiece. These cars had a capacity of net tons of thirty, so that the cost per net ton of capacity was eighteen dollars and thirty-four cents. In the year 1901, June 30th, we purchased steel underframe box cars that cost $942.70 each. They had the same capacity, so that the cost per net ton was thirty-one dollars and forty-two cents. In 1908 we paid for similar cars, steel under-frame box cars, $1304.96 apiece, thirty-ton cars. They cost, per ton of capacity, forty-three dollars and fifty cents, or considerably more than double what the box cars cost us in 1898. The increase of cost in 1908 as compared with the wooden cars of 1898—that is in ten years, was one hundred and thirty-seven per cent. Steel cars of the same construction, capacity, style and make, have increased in cost thirty-eight per cent. in the past seven years. As to coal cars, of which we have bought a good number, wooden coal cars, in 1899 I find we paid $546.89 per car, thirty-ton capacity car; cost per ton of capacity eighteen dollars and twenty-three cents. In 1901 steel coal cars of fifty-tons capacity cost $995.26, which was nineteen dollars and ninety-one cents per ton of capacity. The same car in 1908 cost us $1261.17, or twenty-five dollars and twenty-two cents per net ton of capacity. So again, the steel cars in the past seven years, the increased cost was twenty-seven per cent.

Q. While you are at that point, may I inquire whether there are any limitations which confine the capacity of your cars in the anthracite coal trade? A. We are hampered by the clearance under the chute at the breakers. Originally the breakers in the Schuylkill region, I suppose they were first built for six-ton capacity cars, very small. When I came on the road, I found a great majority of the breakers could only pass small capacity cars, on account of the clearance of the chute. About, possibly ten years ago—I cannot tell the date—we were

advised that we could clear one hundred and five inches above the rail to the top of the brake staff on the coal cars and that excepting on certain few tracks that were arranged to permit the use of box cars; the company had a box car traffic. So that the capacity at that time was probably from one hundred and fifty to two hundred cars a day, of box cars on the box car tracks. On all the rest of the tracks they were limited to cars that would clear one hundred and five inches, and that is substantially true to-day, although, as each breaker has been renewed or has been improved, or new breakers have been built, of course the Coal and Iron Company have endeavored to provide additional clearance that would take a larger car, but they are still hampered so that a one hundred thousand-pound or fifty-ton capacity car cannot be used except in a limited number of breakers. The great number of coal cars are thirty-ton cars.

Q. Which are sixty thousand pounds capacity? A. Which are sixty thousand pounds capacity.

Q. The limitation, to a large extent, continues to your sixty thousand pounds or thirty-ton capacity cars? A. Yes, sir. The low side gondola, of which we use a considerable number in our miscellaneous traffic connected with furnaces and iron work, cost in 1898, wooden cars, $431.22, thirty-ton cars; cost per ton of capacity, fourteen dollars and thirty-seven cents. Steel gondola cars of fifty-ton capacity, bought in 1900, cost $854.35, or seventeen dollars and nine cents per ton of capacity, and the same car bought in 1908, fifty-ton capcaity, cost $1197.12, or twenty-three dollars and ninety-four cents per ton of capacity. The increased cost of steel cars in 1908 as compared with the wooden cars of ten years previous, was one hundred and seventy-eight per cent., or, on the basis of the ton capacity, which would be more proper, sixty-seven per cent. The increase of the steel cars as compard with the same car seven years before was forty per cent. Very much the same is true in regard to locomotives. Reducing the cost of the locomotives to cost per

ton, we find that passenger engines in 1898 cost us $154 a ton, and the same engines purchased in 1906 were $206 a ton, or an increase of thirty-three per cent. Freight locomotives in 1898 were $145 a ton and in 1907 $191 a ton, or thirty-two per cent. Switching locomotives purchased in 1899 cost $154 a ton and in 1908 $215 a ton, or forty per cent. increase.

Q. Freight engines and switching engines, to which you have referred, while not confined to, are largely employed in, the transportation and shipping of anthracite coal? A. Yes, sir.

Q. Please proceed with the other items. A. I have had drawn off, from actual bills paid, some figures as to some of the items that enter into our expense of maintenance and operation. We paid in 1896 for axles, one and three-tenths cents a pound. Last year it was two and a quarter cents. Stone ballast we bought large quantities of in 1899 for fifty cents. We buy the ballast at an assumed cubic yard that is to weigh twenty-five hundred pounds. We paid 50 cents for that in 1899 and last year we paid sixty-five cents, an increase of thirty per cent. Malleable iron castings in 1896 cost two and six-tenths cents, last year three and sixty-five one-hundredths; an increase of forty per cent. Steel we paid four cents for in 1897 and four and a half cents for last year.

Q. When you speak of steel you refer to what? A. Ordinary steel used in the shops. Bituminous coal for supply purposes we bought for sixty-five cents a ton in 1896 and in 1908 we paid a dollar for the same. That is the price at the mines; it does not include the freight. For certain coal we bought from Baltimore and Ohio territory in West Virginia which we buy delivered at Shippensburg on our rails, we paid one dollar and forty-five cents in 1896 and one dollar and eighty-five cents in 1898, an increase of about twenty-four per cent. That is a large item with us. We used last year over eight hundred thousand tons of bituminous coal. I may say that I think the only item on this page which shows no change is the

matter of steel rails. They have been twenty-eight dollars all this time. We hope to see the day when they will be changed. Oak cross ties, sixty cents ten years ago; seventy-four cents last year. An increase of twenty-three and eight one-hundredths per cent. Lumber of all kinds; yellow pine, from fifteen dollars to twenty dollars. Switch timbers, by board measure, thirteen dollars and sixty-five cents in '98, twenty dollars and thirty cents last year; an increase of forty-eight per cent. Oak car material, eighteen dollars in 1896, twenty-two dollars last year; an increase of twenty-two per cent.

Cross examination.

By MR. MCREYNOLDS:

Q. It appears from the evidence that the Philadelphia and Reading Railway Company receives a large amount of bituminous coal from the New York Central and Hudson River Railroad at Newbury Junction? A. Yes, sir.

Q. What becomes of that bituminous coal? A. A large portion of it goes by the line of the Central Railroad of New Jersey at Haucks, just above Tamaqua. Also a large portion of it is used locally on the territory of the railway company; quite a good deal is shipped over our piers to Port Richmond and Port Reading.

Q. Some of it is also delivered to the Central of New Jersey at Allentown? A. I think not, no, sir.

Q. That part of it that goes to Port Reading moves by way of Reading, then down to a point near Philadelphia and thence up by Port Reading Junction and on to the piers at Port Reading? A. Yes, sir.

Q. What becomes of it after it reaches Port Reading? A. The consignees take care of it.

Q. Is it delivered in barges? A. Yes, sir.

Q. And then goes to various water points? A. Yes, sir.

Q. What has been the trend of bituminous rates for

such coals moving over your lines to New York harbor points during the last ten years? A. I am not a traffic man, sir; I do not know.

Q. You do not know whether it has been up or down? A. I never trouble my head about freight rates.

Q. You know all about freight cars but nothing about freight rates, is that it? A. That is the other side of the hall. That is not my business.

Q. You do not know about rates at all at any point? A. No, sir.

Q. Do you know about the arrangement which exists between the Central Railroad of New Jersey and the Philadelphia and Reading Railway Company, under which the Philadelphia and Reading carries its freight to Jersey City? A. You mean from Philadelphia?

Q. Yes. A. The New Line agreement?

Q. No, not the New Line agreement, the old agreement, I presume. A. That is March 16th, 1876; it is called the New Line agreement.

Q. Is that the only agreement existing between the roads now with reference to transportation between those points? A. There are some contracts to which the Baltimore and Ohio is a party subsequent to this, about 1898, I believe.

Q. Is this one of 1876 and the one of 1898 the only agreements with reference to transportation between those points? A. Yes.

Q. How is the compensation which the Central Railroad of New Jersey gets for its part of that haul determined? A. You are asking a traffic question; I do not know that I can answer that.

Q. Can you tell us what proportion of the traffic originating on the lines of the Philadelphia and Reading Railway in 1898 was anthracite coal? A. You could get those figures from our annual reports, I think.

By JUDGE CAMPBELL:

Q. The question is, whether you know? A. I only know them as having read them at the time of the annual report.

By MR. MCREYNOLDS:

Q. You do not know anything except what is in the annual report? A. No, sir.

Re-direct examination.

By JUDGE CAMPBELL:

Q. You do know as a fact that you transported, over the Philadelphia and Reading Railway and its affiliated lines, large quantities of anthracite coal? A. Yes, sir.

Q. You know also that you transported large quantities of bituminous coal? A. Yes, sir.

Q. You know also that you transported large quantities of merchandise traffic of all sorts? A. Yes, sir.

Q. From high class merchandise to the lowest commodities? A. Yes, sir.

Q. But, as to the proportions of each, you are not advised? A. Only as they show in the annual report.

Q. But at this moment? A. At this moment I could not pretend to tell you.

(Adjourned to a date to be arranged between Mr. Moot and Government counsel.)